



1008977



State of Ohio Environmental Protection Agency

## STREET ADDRESS:

Lazarus Government Center  
122 S. Front Street  
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184  
www.epa.state.oh.us

## MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

FEB 13 2006

Ms. Denise Trabbic-Pointer  
Health and Environmental Coordinator  
DuPont Automotive Products Facility  
400 Groesbeck Highway  
Mt. Clemens, Michigan 48043

CERTIFIED MAIL



RECEIVED DIRECTOR'S OFFICE

FEB 13 2006

OHIO E.P.A.

Re: Amended Closure Plan Approval  
DuPont Automotive Products Facility  
Container Storage Area  
OHD 005 041 843

Dear Ms. Trabbic-Pointer:

On January 26, 1996, DuPont Automotive Products Facility (DuPont) submitted to the Ohio Environmental Protection Agency (Ohio EPA) an amended closure plan for a former container storage area (CSA), S01, located at 1930 Tremainsville Road, Toledo, Ohio. Revisions to the amended closure plan were received on September 29, 1999, July 2, 2004, and October 14, 2005. The amended closure plan was submitted pursuant to rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that DuPont's proposal for amended closure complies with the requirements of OAC rules 3745-66-11 and 3745-66-12.

The owner or operator and the public were given the opportunity to submit written comments regarding the amended closure plan in accordance with the hazardous waste rule requirements. No public comments were received by Ohio EPA.

Based upon review of DuPont's submittal and subsequent revisions, I conclude that the amended closure plan for the hazardous waste facility at 1930 Tremainsville Road, Toledo, Ohio, as modified herein, meets the performance standard contained in OAC rule 3745-66-11 and complies with the pertinent parts of OAC rule 3745-66-12.

The amended closure plan submitted to Ohio EPA on January 26, 1996, and revised on September 29, 1999, July 2, 2004, and October 14, 2005, by DuPont is hereby approved with the following modifications:

Bob Taft, Governor  
Bruce Johnson, Lieutenant Governor  
Joseph P. Konecny, Director  
Ohio Environmental Protection Agency

Ohio EPA is an Equal Opportunity Employer



Printed on Recycled Paper

2/13/06

1. General. Ohio EPA sent comments to DuPont via electronic mail on May 13, 2005. These comments pertained to the July 2004 plan. Comments 5, 7, and 10 requested historical information. DuPont states in the revised plan that this information has not been located at this time. The plan is hereby modified to state that if DuPont finds the requested information, it should be sent to Ohio EPA as soon as possible.
2. Section 3.5, Health and Safety Considerations, Page 18-19. DuPont has not included a health and safety plan (HASP) in the closure plan. Ohio EPA needs the opportunity to review the HASP before site work begins. The plan is hereby modified to state that DuPont will submit a project-specific HASP to Ohio EPA ten (10) days prior to initiation of closure activities.
3. Appendix C, Soil Sampling and Analysis Plan. The plan is hereby modified to state that DuPont will include at a minimum the following characteristics in the boring logs: color, grain size, size fraction, sorting, roundness, relative moisture content, plasticity, soil and rock components, unusual color, odor, and sheen.
4. Appendix C, Soil Sampling and Analysis Plan, and Figure 14, Proposed Sampling Plan. Ohio EPA does not agree with the grid calculations in this appendix. However, Ohio EPA does agree with the sampling grid, sampling interval, and most sampling locations in the plan. The plan is hereby modified to include all sampling locations shown in the revised Figure 14 attached to this document.
5. Appendix E, Residential Risk Assessment Methodology. A few of the numbers listed in the toxicity information are incorrect. The plan is hereby modified to include the following:
  - A. The inhalation slope factor for 4-nitroaniline is  $2.1\text{E-}04 \text{ (mg/kg-day)}^{-1}$ .
  - B. The toxicity information for benzo(g,h,i)perylene is the same as the toxicity information for benzo(a)pyrene.
  - C. The toxicity information for chromium is the more conservative toxicity information, chromium VI toxicity information, as the sampling analysis for chromium will analyze for total chromium.
  - D. The dermal absorption factor for isobutyl alcohol is 0.01.
  - E. Toxicity information for phenanthrene is the same as benzo (a) pyrene.

6. Appendix E, Residential Risk Assessment Methodology. The sample calculations for the risk assessment appear to have the correct equations. However, some of the values used in these calculations are incorrect, specifically the concentration of soil in air. The plan is hereby modified to delete the risk assessment sample calculations.
7. Appendix F, Project Specific Waste Management Plan. Ohio EPA is not approving this section as it is still in draft form. The plan is hereby modified to state that DuPont will submit a final waste management plan to Ohio EPA for approval thirty (30) days after receipt of this letter.

The following comments are from the Division of Drinking and Ground Waters (DDAGW).

8. General. The plan does not contain the specific ground water rules that need to be addressed. The plan is hereby modified to state that if ground water is found at levels above the background concentrations then DuPont will need to meet the final facility standards as defined in the OAC 3745-54 rules.
9. Section 3.1, Closure Unit Description, Page 7-8. A storm sewer identified in the closure plan as SWMU 60 is connected to the catch drains at the container storage pad. In this section of the report, reference is made to a containment sump where rinse water from the scarification of the pad was stored until waste disposal analytical results were reviewed. Since the containment sump received any potential spill or waste historically released from the container storage pad, it may potentially be considered to be part of the container storage pad for the purposes of closure.

In order to evaluate for the presence of potential soil contamination around the perimeter of the containment sump, the plan is hereby modified to state that DuPont will complete four soil borings in cardinal directions around the sump. The information from Figure 14 can be used to determine approximately where to drill. If DuPont requires a higher degree of confidence in determining where to drill, geophysical techniques such as ground penetrating radar or electromagnetic survey may also be used. Since these types of survey were already completed at the CSA, it may be helpful to review the previous data for indications as to the location of the sewer line, so as to avoid drilling into it.

10. Appendix C, Soil Sampling and Analysis Plan, Section 4.2, Soil Sampling Procedures, Page 7-8. In this section DuPont has omitted some important details. The plan is hereby modified to state that DuPont will use a photoionization detector (PID) with an 11.7 electron volt ionization potential lamp. DuPont will screen the samples according to the following procedure:

The DuPont geologist will observe the soil core for any unusual signs of discoloration or hydrocarbon staining. If no obvious signs of contamination are observed which should be collected in a more biased approach, then a representative portion of the sample core interval should be collected as an aliquot for PID screening.

The representative portion used as the soil aliquot for PID screening will be placed in a plastic ziplock bag and set aside for five minutes to allow volatilization to occur. If the ambient temperature is below 50 degrees Fahrenheit, the soil sample will be warmed inside a heated vehicle compartment. The soil sample will be manually crumbled inside the bag, the PID probe inserted, the readings taken, and the values recorded on the soil boring log sheets at the corresponding depth interval.

11. Appendix D, Ground Water Sampling Plan, Section 2.2.1, Drilling Procedures, Page 5-6. On page 5 of this section, DuPont states that "soil samples will be collected for lithologic description only". The plan is hereby modified to state that a soil aliquot will be PID screened as in Appendix C Section 4.2. DuPont does not have to collect any soil samples for chemical analysis, but should record the PID readings on the boring logs, as this is relevant field information.
12. Appendix D, Ground Water Sampling Plan, Section 2.2.2, Installation Procedures, Page 6. In this section, DuPont states that during well installation, placement of the sand pack, bentonite seal, and neat cement grout will be accomplished through a tremie tube. Due to the limited annular space between the 4-1/4" ID augers and the 2" PVC well casing, Ohio EPA believes that this approach may be overly difficult to implement in the field. The use of a tremie pipe in a small diameter borehole, if the pressure is not carefully controlled, may result in jetting of cement through the bentonite seal and into the filter pack. The plan is hereby modified to state that due to the anticipated shallow depth of the monitor wells, the placement of the filter pack sand, the use of bentonite chips or pellets, and the placement of the cement surface seal will be completed manually.
13. Appendix D, Ground Water Sampling Plan, Section 2.2.2, Installation Procedures, Page 6. The plan is hereby modified to state that the annular space of the protective casing, between the 2" PVC riser, will be filled with pea gravel to a height within 2" of the top of the PVC riser. This will help to prevent wasp and other insect infestations inside the annular space.

14. Appendix D, Ground Water Sampling Plan, Section 2.2.3, Monitoring Well Development, Page 6-7. In this section, the plan states that the monitoring wells will be developed no sooner than one day following installation to allow the well construction materials to set. Per the DDAGW technical guidance manual, Ohio EPA would prefer that the wells be allowed to set a minimum of 48 hours prior to beginning well development. The plan is hereby modified to state that the wells will be allowed to set a minimum of 48 hours prior to beginning well development.
15. Appendix D, Ground Water Sampling Plan, Section 4.1.5, Sample Collection, Page 11. In this section, DuPont proposes to operate the sampling pump at a flow rate of 0.5 liters/minute or less when collecting volatile organic compound (VOC) samples. Ohio EPA guidance (Barcelona et.al. 1985, U.S. EPA, 1992) discusses that should a pump be used to collect VOC samples, the flow rate should not exceed 0.1 liters/minute. This will ensure that agitation and potential loss of volatile constituents does not occur. The plan is hereby modified to state that VOC samples will be collected at a flow rate not to exceed 0.1 liters/minute.
16. Appendix D, Ground Water Sampling Plan, Section 5.0, Slug Testing, Page 18. After reviewing DuPont's response to Ohio EPA's previous request of May 13, 2005, to conduct slug testing of the fill and sand layer at a depth of five feet, Ohio EPA agrees with the technical merits of DuPont's response and also agrees that laboratory permeameter hydraulic conductivity measurement techniques would be more appropriate. The intent of the previous request was to see if any testing could be done on the sand and fill layer above the stratigraphic gradation into silty clay, which does not necessarily imply an absolute cutoff at a depth of five feet. The plan is hereby modified to state that Ohio EPA will work with DuPont in the field to select mutually agreeable soil boring samples of the upper sand-fill zone, above the stratigraphic gradation into the silty clay layer for laboratory permeability analysis. It is understood between both parties that the term "uppermost five feet" is not an absolute value, and the sand layer may extend somewhat deeper to the silty clay transition, at depths approaching 8-10 feet in some locations. If it is acceptable to DuPont, perhaps more than one sample from each soil boring may be taken for laboratory permeameter analysis to study the effect of the permeability on the transition to the silty clay zone.

Compliance with the approved closure plan, especially including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. Ohio EPA expressly reserves the right to take action, pursuant to chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this amended closure plan does not release DuPont from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director of Environmental Protection is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the commission within 30 days after notice of the Director's action. Notice of the filing of the appeal shall be filed with the Director within three days after the appeal is filed with the commission. An appeal may be filed with the commission at the following address:

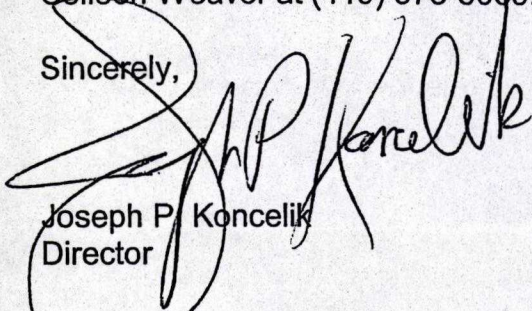
Environmental Review Appeals Commission  
309 South Fourth Street  
Room 222  
Columbus, Ohio 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer, that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC rule 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

Ohio EPA, Division of Hazardous Waste Management, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and, as a result, eliminate the requirement to submit a closure plan in the future.

For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419) 373-3059.

Sincerely,



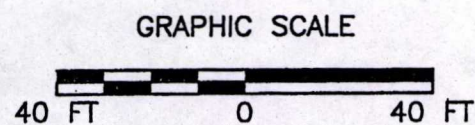
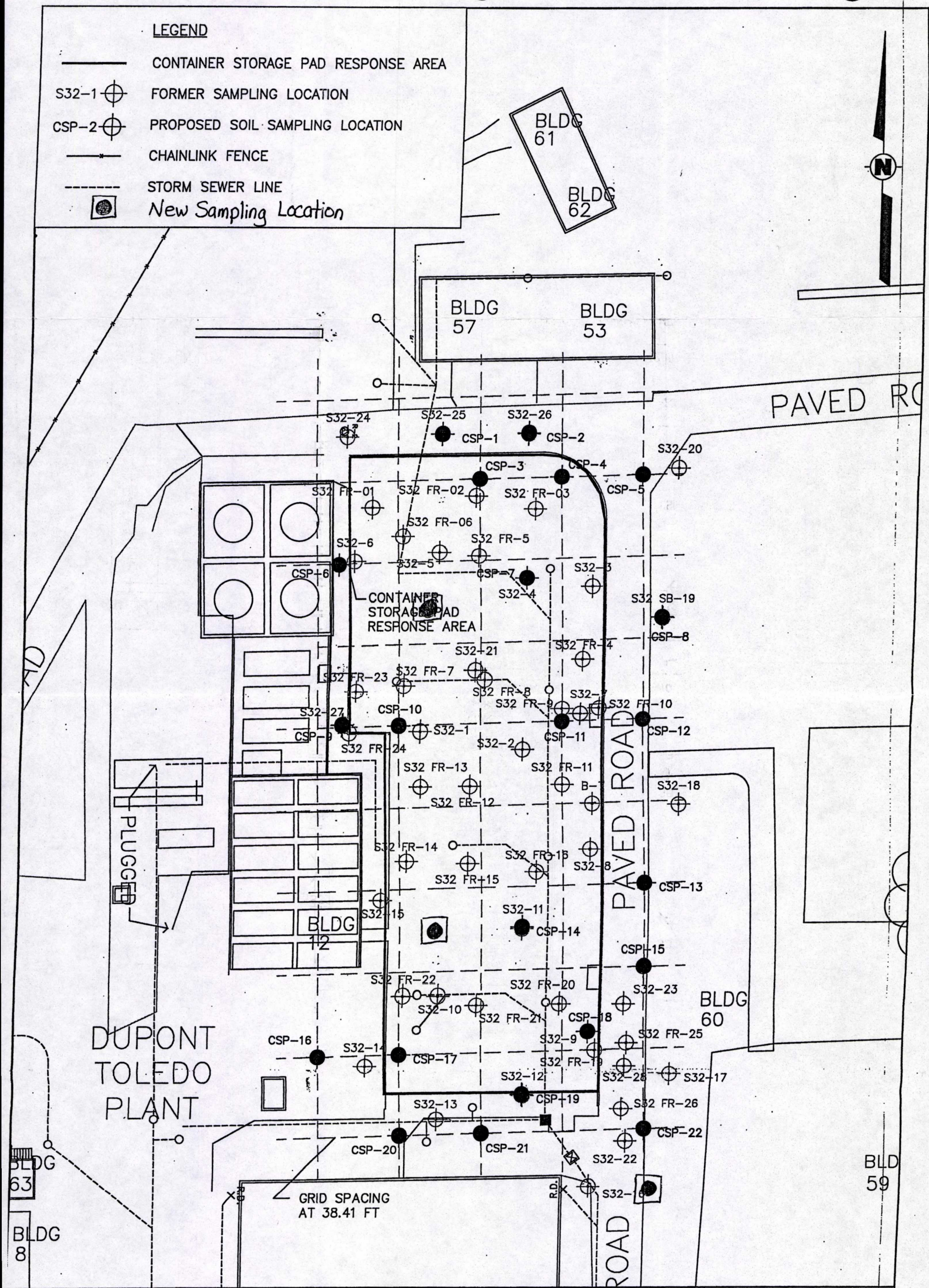
Joseph P. Koncelik  
Director

/lb

pc: Pamela Allen, DHWM Central File, Ohio EPA  
Ed Lim, Manager, ERAS, CO, Ohio EPA  
Harriet Croke, U.S. EPA - Region 5  
Michael Terpinski, Ohio EPA  
Kara Reynolds, Ohio EPA  
Dale McLane, Ohio EPA  
DHWM, NWDO File: "DuPont Automotive, General 2004"

# LEGEND

- CONTAINER STORAGE PAD RESPONSE AREA
- S32-1 FORMER SAMPLING LOCATION
- CSP-2 PROPOSED SOIL SAMPLING LOCATION
- CHAINLINK FENCE
- STORM SEWER LINE
- New Sampling Location



DESIGNED	INITIALS
DHE	
DRAWN	
CHECKED	
RNS	
APPROVED (DESIGN)	
APPROVED (CONSTRUCTION)	



Corporate Remediation Group  
An Alliance between  
DuPont and URS Diamond

Barley Mill Plaza, Building 27  
Wilmington, Delaware 19805

PROP. SAMPLING PLAN  
CONT. STORAGE PAD

DUPONT TOLEDO SITE  
1930 TREMAINSVILLE ROAD  
TOLEDO, OHIO

SCALE 1" = 40' DATE OCT 7, 2005 GSD FILE # 3484801



State of Ohio Environmental Protection Agency

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P.O. Box 1049  
Columbus, OH 43216-1049

FEB 13 2006

Ms. Denise Trabbic-Pointer  
Health and Environmental Coordinator  
DuPont Automotive Products Facility  
400 Groesbeck Highway  
Mt. Clemens, Michigan 48043

CERTIFIED MAIL

Re: **Amended Closure Plan Approval  
DuPont Automotive Products Facility  
Tank 13  
OHD 005 041 843**

ENTERED DIRECTOR'S JOURNAL

FEB 13 2006

OHIO E.P.A.

Dear Ms. Trabbic-Pointer:

On January 26, 1996, DuPont Automotive Products Facility (DuPont) submitted to the Ohio Environmental Protection Agency (Ohio EPA) an amended closure plan for a former container storage tank, T02, located at 1930 Tremainsville Road, Toledo, Ohio. Revisions to the amended closure plan were received on September 29, 1999, July 2, 2004, and October 14, 2005. The amended closure plan was submitted pursuant to rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that DuPont's proposal for amended closure complies with the requirements of OAC rules 3745-66-11 and 3745-66-12.

The owner or operator and the public were given the opportunity to submit written comments regarding the amended closure plan in accordance with the hazardous waste rule requirements. No public comments were received by Ohio EPA.

Based upon review of DuPont's submittal and subsequent revisions, I conclude that the amended closure plan for the hazardous waste facility at 1930 Tremainsville Road, Toledo, Ohio, as modified herein, meets the performance standard contained in OAC rule 3745-66-11 and complies with the pertinent parts of OAC rule 3745-66-12.

The amended closure plan submitted to Ohio EPA on January 26, 1996, and revised on September 29, 1999, July 2, 2004, and October 14, 2005, by DuPont is hereby approved with the following modifications:

Bob Taft, Governor  
Bruce Johnson, Lieutenant Governor  
Joseph P. Konecny, Director  
Ohio Environmental Protection Agency

Ohio EPA is an Equal Opportunity Employer



Printed on Recycled Paper

2/13/06

1. General. Ohio EPA sent comments to DuPont via electronic mail on May 13, 2005. These comments pertained to the July 2004 plan. Comments 7, 8, and 11 requested historical information. DuPont states in the revised plan that this information has not been located at this time. The plan is hereby modified to state that if DuPont finds the requested information, it should be sent to Ohio EPA as soon as possible.
2. Section 3.5, Health and Safety Considerations, Page 17. DuPont has not included a health and safety plan (HASP) in the closure plan. Ohio EPA needs the opportunity to review the HASP before site work begins. The plan is hereby modified to state that DuPont will submit a project-specific HASP to Ohio EPA ten (10) days prior to initiation of closure activities.
3. Appendix C, Soil Sampling and Analysis Plan. The revised plan has omitted some information in this section. The plan is hereby modified to state that DuPont will include at a minimum the following characteristics in the boring logs: color, grain size, size fraction, sorting, roundness, relative moisture content, plasticity, soil and rock components, unusual color, odor, and sheen.
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6. Appendix F, Project Specific Waste Management Plan. Ohio EPA is not approving this section as it is still in draft form. The plan is hereby modified to state that DuPont will submit a final waste management plan to Ohio EPA for approval thirty (30) days after receipt of this letter.

The following comments are from the Division of Drinking and Ground Waters (DDAGW).

7. General. The plan does not contain the specific ground water rules that need to be addressed. The plan is hereby modified to state that if ground water is found at levels above the background concentrations then DuPont will need to meet the final facility standards as defined in the OAC 3745-54 rules.

8. Section 3.3.2, Extent of PCOCs in Soil, Page 12-13 and Appendix C, Soil Sampling and Analysis Plan, Section 4.2, Soil Sampling Procedures, Page 7-8. The plan is hereby modified to state that DuPont will use a photoionization detector (PID) with an 11.7 electron volt ionization potential lamp. DuPont will screen the samples according to the following procedure:

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Compliance with the approved closure plan, especially including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. Ohio EPA expressly reserves the right to take action, pursuant to chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this amended closure plan does not release DuPont from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director of Environmental Protection is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the commission within 30 days after notice of the Director's action. Notice of the filing of the appeal shall be filed with the Director within three days after the appeal is filed with the commission. An appeal may be filed with the commission at the following address:


Environmental Review Appeals Commission  
309 South Fourth Street  
Room 222  
Columbus, Ohio 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer, that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC rule 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

Ohio EPA, Division of Hazardous Waste Management, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and, as a result, eliminate the requirement to submit a closure plan in the future.

For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419) 373-3059.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read "J. P. Koncelik". The signature is written over the printed name and title.

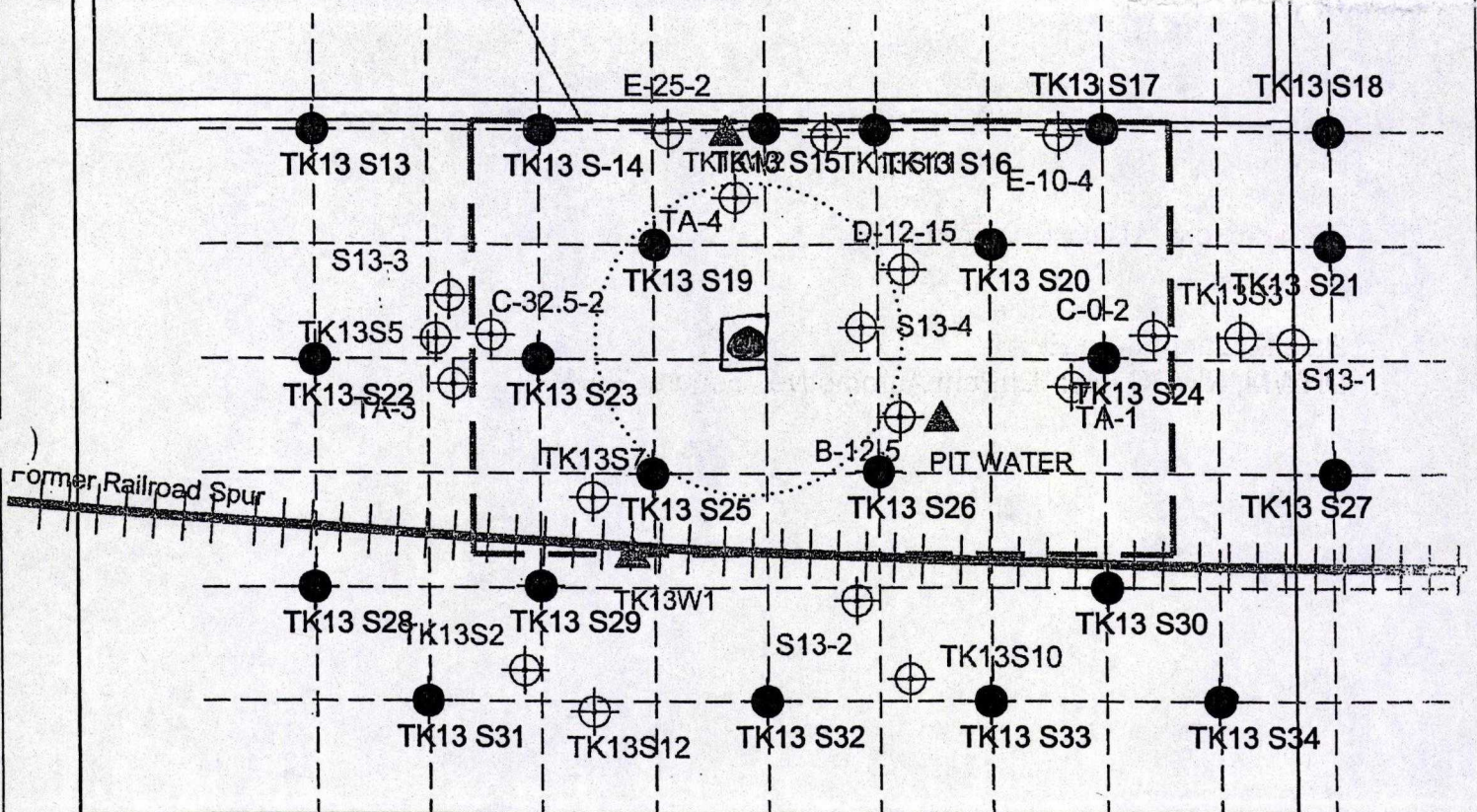
Joseph P. Koncelik  
Director

Alb

pc: Pamela Allen, DHWM Central File, Ohio EPA  
Ed Lim, Manager, ERAS, CO, Ohio EPA  
Harriet Croke, U.S. EPA - Region 5  
Michael Terpinski, Ohio EPA  
Kara Reynolds, Ohio EPA  
Dale McLane, Ohio EPA  
DHWM, NWDO File: "DuPont Automotive, General 2004"

# Building #7

TANK 13 RESPONSE AREA



## Legend



Approximate Location of Tank 13



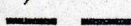
Former Water Sampling Location



Former Soil Sampling Location



Proposed Soil Samp. Location

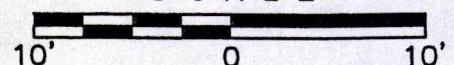


Excavated Area (Approximate)



New Sampling Location

SCALE



Corporate Remediation Group  
An Alliance between  
DuPont and URS Diamond



PROP. SOIL SAMP. LOC.

DuPONT AUTOMOTIVE PRODUCTS  
TOLEDO, OHIO

SCALE DESIGNED DRAWN CAD FILE NO.

**Certified Mail**

July 2, 2002

Mr. George Cross  
DuPont Automotive Products  
1930 Tremainsville Road  
Toledo, Ohio 43613

**Re: Notice of Deficiency  
Amended Closure Plan  
DuPont Automotive Products  
OHD 005 041 843**

**FILE**

Dear Mr. Cross:

On May 20, 1992, Ohio EPA received from DuPont Automotive Products (DuPont) an amended closure plan for a container storage area (D001, D002, D005, D006, D007, D008, D035, F001, F003, F005) located at 1930 Tremainsville Road, Toledo, Ohio. Revisions to the amended closure plan were received on August 12, 1994, January 20, 1996, and September 29, 1999.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a review of the revised closure plan received on September 29, 1999, and has determined it to be incomplete and technically inadequate.

We have enclosed, as an attachment to this correspondence, detailed deficiency comments on the closure plan. Please provide a revised closure plan addressing all areas indicated in the deficiency comments. Ohio Administrative Code (OAC) rule 3745-66-12 requires that such a revised amended closure plan be submitted to the director of Ohio EPA for approval within thirty (30) days of the receipt of this letter.

The revised amended closure plan shall be prepared in accordance with the following editorial protocol or convention:

- 1) Old Language is over-struck, but not obliterated.
- 2) New Language is capitalized.

- 3) Page headers should indicate date of submission.
- 4) If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The revised amended closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Manager, Information Technologies and Technical Support Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Amber Hicks, Ohio EPA, NWDO District Office, 347 N. Dunbridge Road, Bowling Green, Ohio.

Ohio EPA will, pursuant to OAC rule 3745-66-12, review the re-submitted plan and issue a final action approving or modifying the plan. Ohio EPA's final action on the re-submitted plan is appealable to the Environmental Review Appeals Commission.

If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Amber Hicks, at (419) 373-3082.

Ohio EPA, DHWM, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and as a result eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419) 373-3059.

Sincerely,

Michael R. Terpinski  
Division of Hazardous Waste Management

amended closure post-closure plan notice of deficiency  
last revised: March 2002

cc: Pamela Allen, DHWM, Central File, Ohio EPA  
Harriet Croke, U.S. EPA, Region V  
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA  
NWDO File

ec: Amber Hicks, Ohio EPA, NWDO

### **Attachment**

1) DuPont shall be aware that the use of Ohio EPA's Generic Risk-Based Clean-up Standards (GCNs) is not appropriate for closure of this unit at this time. These remediation standards apply only in the case of a single contaminated media - they may not be used where both soil and ground water contamination are present. Given the conditions underlying the unit (sandy soil, soil described as "very moist" to "wet" at depths as shallow as 1.5 to 3.5 feet), there is potential for constituents from the unit to impact ground water. A letter from Heritage Remediation/Engineering, Inc. dated October 4, 1993, also stated that the shallow perched ground water zone at the site detected hits of barium and chromium. Conclusions based on comparisons to Ohio's Generic Risk-Based Clean-up Standards are hereby stricken.

2) Ohio EPA does not allow for an industrial soil clean-up level for lead at a site that is closing under residential standards. The closure plan is hereby modified to state that DuPont shall remediate lead levels to either background at the site (mean+2 standard deviations), the lead generic background level (GRS) of 37 mg/kg, or the risk-based lead cleanup number of 245 mg/kg as stated in Ohio EPA's Closure Plan Review Guidance Supplement: Lead Remediation Standards.

3) Ohio EPA does not believe the full horizontal and vertical extent of contamination at this unit has been defined. Concentrations well above detection limits were detected for toluene, ethyl benzene, and xylene at boring FR-23 (2-4 foot interval). However, it does not appear DuPont obtained a sample to the west of that boring. Nor did they analyze for these chemicals of concern (COCs) at the depths of 4-6 feet or 6-8 feet. The closure plan is hereby modified to state that Dupont will take additional borings at this location to further delineate the horizontal and vertical extent of contamination. DuPont shall submit these boring locations to Ohio EPA for approval prior to undertaking this activity.

4) **Section 3.3, Decontamination Efforts** - The closure plan is hereby modified to state for any further sampling or remediation efforts that all analytical results and manifests generated during decontamination efforts (including the generation of decontamination rinseate) will be submitted to the Ohio EPA. ***Per a conference call between DuPont and Ohio EPA on April 16, 2002, DuPont informed Ohio EPA they no longer have the manifests for the decontamination activities already conducted during the closure activities of this unit. DuPont only keeps manifests on file for five years and then they are purged.***

5) **Section 4.1, Sampling Procedures** - The closure plan is hereby modified to state that DuPont must submit copies of manifests or bills of lading for the off-site shipment of any wastes generated during the closure of the unit.

6) **Section 5.1.1, Naturally Occurring Compounds** - Dupont shall note that the high levels of metals in the area where BG samples 9-12 were taken could be cause for future investigation. Ohio EPA is aware that this contamination is not associated with activities formerly conducted at the Container Storage Pad. However, additional information may be required explaining this area.

7) **Section 6.1.1 Exposure Pathways: Current Land Use** - Dupont has yet to clarify the issue surrounding the shallow perched ground water zone within the container storage pad unit. The fact that ground water is not the public water supply in this area is not justification for the exclusion of further ground water investigations. ***Per a conference call between DuPont and Ohio EPA on May 30, 2002, DuPont stated they will be submitting a work plan for the boring program to delineate the sand area/shallow perched ground water zone.***

A letter from Heritage Remediation/Engineering, Inc. dated October 4, 1993, stated that a ground water sample at the site detected hits of barium and chromium. The closure plan is hereby modified to state that Dupont will include the analytical data and all

pertinent information associated with the well (location, depth, etc.) within the plan. Dupont shall note that if the ground water is currently contaminated as was stated in the correspondence from Heritage Remediation/Engineering, Inc. dated October 4, 1993, the use of GCNs is not appropriate.

**8) Section 7, Schedule of Closure** - The closure plan is hereby modified to state that Ohio EPA will be given five working days notice before critical activities pertaining to the closure (soil removal, sampling, independent engineer certification, backfilling) occur.

**9) Section 8, Description of Removal Efforts and Treatment Processes** - The closure plan is hereby modified to state that Dupont will comply with all applicable OSHA requirements including submitting a health and safety plan to Ohio EPA prior to any excavation at the site.

**10) Section 8, Description of Removal Efforts and Treatment Processes** - The closure plan is hereby modified to state that metals-impacted soils shall be removed in the area containing borings FR-19, FR-20, and FR-25. DuPont's suggestion to remove soils to a depth of 3.5 feet is acceptable for the areas immediately surrounding FR-19 and FR-20. The area surrounding boring FR-25 shall be excavated to a depth of at least 6 feet, as lead is present at 5470 mg/kg at that depth.

**11) Section 8, Description of Removal Efforts and Treatment Processes** - The closure plan is hereby modified to state that VOC-impacted soil shall be removed in the area surrounding boring FR-23. Xylene was detected in this boring at the 2-4 foot interval at a concentration of 410 mg/kg. Xylene's soil saturation limit is 316 mg/kg. Ohio EPA's Division of Hazardous Waste Management's policy does not allow concentrations of contaminants to be left in soil above their respective soil saturation limit due to the potential for a contaminant to be in a free-phase state. Dupont's closure plan is also modified to state that this excavation will occur to a depth of 8 feet unless Dupont takes confirmation samples indicating that VOCs (in this case xylene contamination above the soil saturation limit) are not present below 4 feet. See also Comment 3 above.

Confirmatory sampling must be performed in the bottom and sidewalls of all trenches. DuPont shall submit a map with sampling locations for Ohio EPA's approval prior to initiation of sampling. Ohio EPA must be notified five days in advance of any confirmation sampling activities. Should concentrations of metals exceed site specific or generic background concentrations, DuPont would be required to continue excavating until background levels are met, or perform a site-specific risk assessment on the remaining soils.

Given the shallow contamination at boring FR-7, excavation of the area would seem economically viable. However, DuPont may perform a risk assessment including the hot spot using the residential risk assessment formulae and assumptions contained in Ohio EPA's Closure Plan Review Guidance. Any risk assessment performed must be calculated for the entire unit, not just a "hot spot."

**12) Section 8, Description of Removal Efforts and Treatment Processes** - The closure plan is hereby modified to state more detail describing the excavation and confirmation sampling to be completed for the hot spots proposed in this section, and that Dupont shall receive approval from Ohio EPA on the locations/activities of sampling and excavation prior to implementing these activities. The plan shall also be modified to state the estimated volume of contaminated soil/rinse water to be removed/disposed of, disposal facilities, transporters, applicability of land disposal restrictions, and staging and loading activities.

**13) Figures** - DuPont shall submit the construction-details (drawings/blueprints) of the unit to be closed.

**14) Table 1, Background Levels for Naturally Occurring Compounds** - In sub-note (1) Appendix D is hereby changed to "Appendix E".

**Certified Mail**

July 2, 2002

Mr. George Cross  
DuPont Automotive Products  
1930 Tremainsville Road  
Toledo, Ohio 43613

FILE

**Re: Notice of Deficiency  
Amended Closure Plan  
DuPont Automotive Products  
OHD 005 041 843**

Dear Mr. Cross:

On April 19, 1993, Ohio EPA received from DuPont Automotive Products (DuPont) an amended closure plan for a former hazardous waste storage tank (D001, D005, D007, D008, D009, D018, D035, F003, F005) located at 1930 Tremainsville Road, Toledo, Ohio.

Revisions to the amended closure plan were received on January 26, 1996 and September 29, 1999.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a review of the revised closure plan received on September 29, 1999, and has determined it to be incomplete and technically inadequate.

We have enclosed, as an attachment to this correspondence, detailed deficiency comments on the closure plan. Please provide a revised closure plan addressing all areas indicated in the deficiency comments. Ohio Administrative Code (OAC) rule 3745-66-12 requires that such a revised amended closure plan be submitted to the director of Ohio EPA for approval within thirty (30) days of the receipt of this letter.

The revised amended closure plan shall be prepared in accordance with the following editorial protocol or convention:

- 1) Old Language is over-struck, but not obliterated.
- 2) New Language is capitalized.

- 3) Page headers should indicate date of submission.
- 4) If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The revised amended closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Manager, Information Technologies and Technical Support Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Amber Hicks, Ohio EPA, NWDO District Office, 347 N. Dunbridge Road, Bowling Green, Ohio.

Ohio EPA will, pursuant to OAC rule 3745-66-12, review the re-submitted plan and issue a final action approving or modifying the plan. Ohio EPA's final action on the re-submitted plan is appealable to the Environmental Review Appeals Commission.

If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Amber Hicks, at (419) 373-3082.

Ohio EPA, DHWM, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and as a result eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419) 373-3059.

Sincerely,

Michael R. Terpinski  
Division of Hazardous Waste Management

amended closure post-closure plan notice of deficiency

last revised: March 2002

cc: Pamela Allen, DHWM, Central File, Ohio EPA  
Harriet Croke, U.S. EPA, Region V  
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA  
NWDO File

ec: Amber Hicks, Ohio EPA, NWDO

### **Attachment**

1) DuPont shall be aware that the use of Ohio EPA's Generic Risk-Based Clean-up Standards (GCNs) is not appropriate for closure of this unit at this time. These remediation standards apply only in the case of a single contaminated media - they may not be used where both soil and ground water contamination are present. Given the conditions underlying the unit (sandy soil, soil described as "very moist" to "wet" at depths as shallow as 1.5 to 3.5 feet), there is potential for constituents from the unit to impact ground water via this sand area/shallow perched ground water zone. During the 1992 sampling event, DuPont detected concentrations of ethylbenzene and xylene in the excavation pit water. DuPont has not clarified whether these detections are from contaminated perched water. Until this perched water zone has been characterized, conclusions based on comparisons to Ohio's Generic Risk-Based Clean-up Standards

are hereby stricken.

2) Dupont shall clarify the issue surrounding the shallow perched ground water zone within the tank 13 unit (see comment above). ***Per a conference call between DuPont and Ohio EPA on May 30, 2002, DuPont stated they will be submitting a work plan for the boring program to delineate the sand area/shallow perched ground water zone.***

The sampling data from the December 4, 1992 sampling event contained detections of ethylbenzene and xylene in excavation pit water. DuPont will need to clarify the presence of these contaminants in the excavation pit water and fully define the perched water zone/sand lense. DuPont shall note that until the shallow perched water zone has been fully delineated and the issues surrounding this perched water zone (contaminants detected in excavation pit water) have been resolved, the use of GCNs is not appropriate.

3) **Section 3.3, Decontamination Efforts** - The closure plan is hereby modified to state for any *further* sampling or remediation efforts that all analytical results and manifests generated during decontamination efforts (including the generation of decontamination rinseate) will be submitted to the Ohio EPA. ***Per a conference call between DuPont and Ohio EPA on April 16, 2002, DuPont informed Ohio EPA they no longer have the manifests for the decontamination activities already conducted during the closure activities of this unit. DuPont only keeps manifests on file for five years and then they are purged.***

4) **Section 4.1, Sampling Procedures** - The closure plan is hereby modified to state that DuPont must submit copies of manifests or bills of lading for the off-site shipment of any wastes generated during additional closure activities of the unit.

5) **Section 5.1, Comparison of Sample Results to RCNs and Table 2, Comparison of Detected Constituent Concentrations to remediation standards** - DuPont lists within this table the method detection limits (MDLs) for the contaminants of concern (COCs) for this unit from the 1999 sampling event. The MDLs are correct for methylene chloride, methyl ethyl ketone, and toluene. However, DuPont has incorrectly stated the MDL for acetone as 510 micrograms per kilogram (ug/kg). Per the analytical data sheets in Appendix E from the 1999 sampling event, the MDL for acetone is 370 ug/kg. DuPont shall correct this table.

6) **Section 7, Schedule of Closure** - The closure plan is hereby modified to state that Ohio EPA will be given five working days notice before critical activities pertaining to the closure (sampling, independent engineer certification) occur.

7) **Section 8, Description of Removal Efforts and Treatment Processes** - The closure plan is hereby modified to state that DuPont will comply with all applicable OSHA requirements including submitting a health and safety plan to Ohio EPA prior to any excavation at the site.

**8) Figures** - DuPont shall submit the construction details (drawings/blueprints) of the unit to be closed.

**9) Figures, Figure 3; Appendix C, Ohio EPA Correspondence, Figure 2; and Appendix E, Analytical Results** - Ohio EPA is unclear about the information provided concerning the 1992 sampling event. The figures list locations of soil borings and ground water samples from 4/22/92 and 4/23/92. The analytical data submitted from Heritage Laboratories, Inc. from a 1992 sampling event is dated as received December 8, 1992. The soil boring ID numbers on Figures 2 and 3 also are different than the sample ID numbers on the December 1992 analytical forms. DuPont shall provide the analytical data from the 4/92 sampling event and also indicate on Figures 2 and Figure 3 the location of the samples taken during the December 1992 sampling event.

**10) Table 2, Comparison of Detected Constituent Concentrations to remediation standards** - DuPont has listed the maximum concentration of the COCs from the 1992 sampling event and on the same line incorrectly listed the MDLs for the corresponding COC from the 1999 sampling event. DuPont shall revise this table to list the maximum concentration and the MDL for all the COCs from the *same* sampling event.

**11) Table 2, Comparison of Detected Constituent Concentrations to remediation standards** - DuPont's conversion of the GCN data to units of ug/kg is confusing. Ohio EPA would prefer that DuPont record all information in units of milligram per kilogram (mg/kg) as the GCNs are listed in the Ohio EPA's Closure Plan Review Guidance for RCRA Facilities (CPRG). DuPont shall revise this table to reflect units of mg/kg.

**12) Appendix B, Heritage Sampling Letter and Soil Disposal Manifests** - The analytical data sheets from Heritage Laboratories, Inc. for soil samples B-12-5, Floor; C-32-5-2, North Wall; and the Water in Pit dated December 8, 1992 are missing. DuPont shall provide these data sheets.

**13) Appendix C, Ohio EPA Correspondence, Figure 2** - DuPont has stated the approximate locations of soil samples taken on 6/27/91 on Figure 2. However, DuPont failed to include the analytical data from this sampling event. DuPont shall provide this data.

**14) Appendix E, Analytical Results** - The MDLs reported from Lancaster Laboratories in the analysis of the soil boring data submitted on 6/26/99 are high for all constituents due to the sample preservation in methanol. Ohio EPA is unsure how DuPont can be certain that the full nature and extent of contamination has been defined at this unit. With MDLs so high, DuPont may have not detected all contaminants that were indeed present.



State of Ohio Environmental Protection Agency

**Northwest District Office**

347 North Dunbridge Road  
Bowling Green, Ohio 43402-9398  
(419) 352-8461 FAX (419) 352-8468

George V. Voinovich  
Governor

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**NOTICE OF DEFICIENCY**

Re: **CLOSURE PLAN**  
DuPont- Tank 13  
OHD 005 041 843

**CERTIFIED MAIL** Z 092 091 188

March 31, 1999

Mr. Ray Sheehy  
DuPont Automotive Products  
1930 Tremainsville Road  
Toledo, Ohio 43613

Dear Mr. Sheehy:

On January 26, 1996, Ohio EPA received from E.I. DuPont deNemours, Inc. (DuPont) a closure plan for a former hazardous waste storage tank (D001, D005, D007, D008, D009, D018, D035, F003, F005) located at 1930 Tremainsville Road, Toledo, Ohio.

This closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that DuPont's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the revised closure plan in accordance with OAC Rule 3745-66-12. The original public comment period extended from February 5, 1996, through March 8, 1996. No public comments were received by Ohio EPA.

Pursuant to OAC Rule 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the revised closure plan, outlined in Attachment A.

Please take notice that OAC Rule 3745-66-12 requires that a modified revised closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter.

The modified revised closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.




2. New Language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The modified revised closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Manager, Data Management Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Michael Terpinski, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

Upon review of the resubmitted plan, Ohio EPA will prepare and issue a final action approving or modifying such plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Michael Terpinski at (419) 373-3070.

Sincerely,



Elizabeth Ames  
Supervisor

Division of Hazardous Waste Management

MRT/dlh

pc: Tom Crepeau, DHWM, Central File, Ohio EPA  
Harriet Croke, USEPA, Region V  
Ed Lim, CO, Ohio EPA  
Stephanie McClure, CO, Ohio EPA  
Michael Terpinski, Ohio EPA, NWDO  
NWDO File

## Attachment A

1. Section 1.2, Facility Description- DuPont must include a complete, detailed list of all hazardous wastes (chemical name and EPA hazardous waste number) treated, stored, or disposed of in Tank 13, as well as their breakdown products. Because this list is the basis for all soil, groundwater, and solid waste sampling as well as the derivation of risk-based remediation standard(s), the list of hazardous waste must identify all hazardous constituents listed in the Appendix to OAC 3745-51-11 (40 CFR, Part 261, Appendix VIII) associated with the wastes managed in Tank 13.
2. Section 3.0, Closure Performance Standard- DuPont states that removal of residual waste will be demonstrated through detailed sampling and analysis but does not specifically state that this information will be provided to Ohio EPA. Analytical results from confirmation sampling performed by DuPont shall be provided with the closure certification document upon completion of closure.
3. Section 3.2, Removal of Wastes- DuPont states that impacted soil was removed by Heritage Environmental, but no description of how the soil was managed is included. Appendix A purportedly summarizes soil removal activities, but this letter merely states that elevated levels of several volatile organic compounds (VOCs) were found in the excavation floor and walls. There is no information as to where the waste was disposed and whether it was managed as a hazardous waste. A description of how this material was managed must be included in this section. Any manifests associated with the soil removal must also be included.
4. Section 4.0, Sampling Plan and Analytical Procedures- DuPont must explain why RCRA metals were not included in this risk assessment. Ohio EPA records indicate DuPont's wash solvent (the material stored in Tank 13) is currently coded D001, D005, D007, D008, D018, D035, F003, F005. During past inspections, DuPont was also coding this stream with the D009 waste code. This would typically indicate the presence of the RCRA metals barium, chromium, lead, and mercury. DuPont must include these constituents in the risk assessment for Tank 13 or provide a legitimate reason for their exclusion.
5. Section 4.1, Sampling Results- On page 6, DuPont states that a sample to be taken from against the boiler house wall was not taken due to unstable fill that was placed in the Tank 13 excavation area. Inconvenience is not an excuse for not defining the full extent of contamination associated with a unit. If the fill was structurally unsound, borings could still likely be obtained by hand auger. Borings from against the boiler house wall location must be obtained and results provided to Ohio EPA. DuPont shall notify Ohio EPA at least five days in advance of this sampling.
6. Section 4.1, Sampling Results- The language used in this section seems to indicate that DuPont has sampled the material used to backfill the area where Tank 13 was formerly located. Sampling fill material does not constitute defining the full vertical and horizontal extent of contamination. Only soils present before the excavation need to be sampled. Alternatively, DuPont may remove more soil and, if confirmation samples confirm VOCs are below detection limits and metals are below background levels, pursue a "clean" closure.

7. Section 4.1, Sampling Results- This section contains no discussion of background levels for RCRA metals at the site. As the solvent contained in Tank 13 was characteristically hazardous for barium, chromium, lead, and mercury, background samples should have been taken and metals concentrations in the samples compared to them. The laboratory information contained in Appendix D indicates that metals may have been analyzed for, but the plan contains no discussion as to why metals were not included in the risk assessment.

8. Section 5.0, Remediation Standards for Soil- DuPont must specifically state why metals were not evaluated in this risk assessment.

9. Section 6.1, Data Evaluation- DuPont states that "QAQC information was not available for the 1992 data. Therefore, it was assumed that the data was accurate and usable for risk assessment purposes." DuPont should realize that this is an incorrect assumption and the 1992 data should not be used for the purpose of calculating risk posed by the unit. However, as the soil originally sampled has been removed and would likely produce higher overall readings, this data may be used for purposes of calculating concentrations of constituents in groundwater through the use of the partitioning coefficient, KOC.

10. Section 6.2.3, Potential Receptors and Exposure Pathways- Land overlying a unit that closes by risk assessment may be transferred and developed freely without giving notice of its prior use. Therefore, determination of closure via risk assessment will be based on an unrestricted future land-use scenario where both adults and children, ages 1-6 years, are assumed to live on the contaminated site. The "Worker" assumptions included in Appendix F appear to be based on an industrial scenario and are not strictly applicable to this closure. DuPont may eliminate this scenario if they wish.

11. Section 6.2.3, Potential Receptors and Exposure Pathways- DuPont has not included sufficient documentation for calculating concentrations of constituents in groundwater through the use of the partitioning coefficient, KOC. Therefore, groundwater must be included as a pathway in the risk assessment. The fact that a facility uses a public potable water supply is not an adequate basis for eliminating groundwater as a pathway.

12. Table 4, Summary of Detected Organic Constituents- DuPont must explain why only six samples were sampled for acetone and methyl ethyl ketone (MEK), while nine samples were analyzed for methylene chloride and toluene. All samples should have been analyzed for all these constituents. The water sample, presumably taken from a temporary well, is invalid.



State of Ohio Environmental Protection Agency

ADDRESS:

MAILING ADDRESS:

WaterMark Drive  
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

P.O. Box 1049  
Columbus, OH 43216-1049

**NOTICE OF DEFICIENCY**

**Certified Mail  
Return Receipt Requested**

Re: **Amended Closure Plan**  
DuPont Automotive Products  
OHD 005 041 843

March 20, 1998

Mr. Ray Sheehy  
DuPont Automotive Products  
1930 Tremainsville Road  
Toledo, Ohio 43613

Dear Mr. Sheehy:

On January 22, 1996, Ohio EPA received from DuPont Automotive Products (DuPont) an amended closure plan for container storage area located at 1930 Tremainsville Road, Toledo, Ohio.

This amended closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that DuPont's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the amended closure plan in accordance with OAC Rule 3745-66-12. The original public comment period extended from February 5, 1996, through March 13, 1996. No public comments were received by Ohio EPA.

Pursuant to OAC Rule 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the amended closure plan, outlined in Attachment A.

Please take notice that OAC Rule 3745-66-12 require(s) that a modified amended closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter.

The modified amended closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.

George V. Voinovich, Governor  
Nancy P. Hollister, Lt. Governor  
Donald R. Schregardus, Director

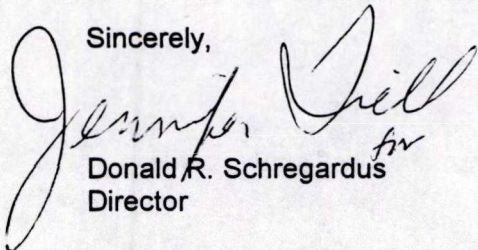


3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

Two copies of the modified amended closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Manager, Data Management Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Michael Terpinski, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

Upon review of the resubmitted plan, I will prepare and issue a final action approving or modifying such a plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Michael Terpinski at (419) 373-3070.

Sincerely,



Donald R. Schregardus  
Director

*dupfnod.CLOSURE.ao*

cc: Tom Crepeau, DHWM, Central File, Ohio EPA  
Harriet Croke, USEPA, Region V  
Montee Suleiman, CO, Ohio EPA  
Michael Terpinski, Ohio EPA, NWDO  
Stephanie McClure, Ohio EPA, CO

## ATTACHMENT A

1. **Section 3.0, Closure Performance Standard.** On page 4, DuPont states that all waste and waste constituents will be removed from F-row. However, Section 8.0 of the plan states that no soil is to be removed from the unit as a result of closure activities. The soil from F-row contains waste constituents; therefore, the two statements are contradictory. DuPont shall correct this discrepancy.
2. **Section 3.1, Description of Waste Management Units to be Closed.** DuPont must include a complete, detailed list of all hazardous wastes (chemical name and EPA hazardous waste number) treated, stored, or disposed of at F-row. Because this list is the basis for all soil, groundwater, and solid waste sampling as well as the derivation of risk-based remediation standards, the list of hazardous waste must identify all hazardous constituents listed in the Appendix to OAC 3745-51-11 (40 CFR, Part 261, Appendix VIII) associated with the wastes managed in F-row. DuPont shall provide this information.
3. **Section 3.2, Removal of Wastes.** DuPont shall provide copies of the manifests for the removal and disposal of all wastes associated with the F-row closure.
4. **Section 3.3, Decontamination Efforts.** DuPont states that the storage pad was scrubbed and the rinseate was collected by the storm sewer containment system. However, no discussion of the volume of rinseate generated, analysis of the rinseate for hazardous waste constituents, or the ultimate disposition of the rinseate is provided. DuPont shall include this information.
5. **Section 4.1, Sampling Results.** On page 9, DuPont states that all decontamination wastewater and rinseate was collected and drummed for disposal; however, section 3.3 states that the rinse water was collected in DuPont's storm sewer containment system. DuPont shall explain this discrepancy and provide the actual manner in which these wastes were managed.

Also, according to this section, soil cuttings and unused sample portions were placed in drums. DuPont states that the wastes were managed according to the waste management plan. No copy of the waste management plan is included in the closure plan. DuPont shall submit a copy of the waste management plan used in this closure and provide records detailing the management of all wastes generated from the F-row closure.
6. **Section 4.2.1.** In this section DuPont states that fill material was encountered in the first few inches of soil samples FR9 to FR12. This is inconsistent with the boring logs presented in Appendix C. DuPont shall correct this discrepancy.
7. **Section 5.1 and Table 1.** DuPont has determined that the average concentration for chromium is 3 mg/kg. According to Ohio EPA calculations which are based on the background data presented, the average concentration for chromium should be 10.33 mg/kg. DuPont shall determine the appropriate value for chromium and adjust the text to reflect the correct value.

8. **Section 6.1, Data Evaluation.** DuPont states that contaminants are primarily concentrated in two hotspots under the pad. DuPont has not fully defined the horizontal or vertical extent of contamination in these hotspots. DuPont must define the extent of contamination in the hot spot areas. In order to fully define the horizontal and vertical extent of contamination, DuPont shall sample vertically at former sample locations FR-7, FR-13, FR-19, and FR-20 until three consecutive nondetects are obtained for each constituent and shall sample horizontally to the west of FR-7 and FR-13 and to the east and south of FR-19 and FR-20 until one nondetect is reached for each constituent. DuPont shall propose a sampling strategy to define the extent of contamination in the revised closure plan. Once DuPont has defined the full vertical and horizontal extent of contamination in the two hotspot areas, DuPont shall identify the actual sampling locations on a scaled diagram and provide this diagram in the certification.
9. **Section 6.1.1, Naturally Occurring Compounds.** On page 15, DuPont states that cadmium was not considered a potential constituent of concern because cadmium concentrations were within a narrow range with the exception of several outlying concentrations. Because of the outlying concentrations (i.e., areas of contamination) and because DuPont proposes to leave these concentrations in soil, cadmium is considered to be a constituent of concern and must be included in the risk assessment, as DuPont has done. DuPont shall modify the statement on page 15 to reflect that cadmium is a constituent of concern because of the outlier concentrations.
10. **Section 6.2.1, Exposure Point Concentration.** On page 17, DuPont states that chromium concentrations were reported as total chromium and not divided into trivalent and hexavalent chromium. However, Table 8 of the risk assessment has separate values for trivalent and hexavalent chromium. On page 18, DuPont states that the risk assessment was conducted assuming fifteen percent of chromium present on-site was in hexavalent form. DuPont provides no explanation as to how it reached this decision. As DuPont has not provided any analytical data to verify that their assumptions are valid, all chromium present on-site shall be considered to be hexavalent chromium.
11. **Section 6.2.5, Calculation of Dose.** DuPont shall note that the dermal absorption value for volatile organic compounds (VOCs) is ten percent. DuPont has used a more conservative value of twenty-five percent. No modifications are required.
12. **Section 6.2.5, Calculation of Dose.** On page 21, DuPont states that volatilization of chemicals from the subsurface soil is not appropriate in this situation. As a risk assessment contemplates unrestricted land use and development, DuPont must evaluate potential exposure to volatile contaminants from surface and subsurface soils. Inhalation of VOCs must be included as a pathway in the risk assessment. DuPont shall modify the closure plan to include this pathway.
13. **Section 6.3, Toxicity Assessment.** On page 23, DuPont uses the Integrated Exposure Uptake Biokinetic (IEUBK) model to evaluate lead exposure in children and a model developed by Bowers et al. to evaluate lead exposure in adults. For risk-based closures under a residential scenario, Ohio EPA requires that the site-specific background standard (i.e., 69.2 mg/kg) be used as the clean standard.

Based on DuPont's soil sampling results, the site-specific background standard is only exceeded at two (2) locations (FR19 and FR20) from 1.5-3.5 feet. DuPont shall remove or remediate these two (2) areas of hot spot contamination and conduct confirmatory sampling to verify that the cleanup standard for lead has been obtained. Once DuPont removes FR19 and FR20, it is likely that other contaminant hotspots, such as barium, mercury, chromium, and cadmium, will also be removed. DuPont shall propose a confirmatory sampling plan for the excavated or remediated areas in the revised closure plan.

14. **Section 6.4.3. Results of the Risk Characterization.** This section separates the quantitative risk estimates for hot spot areas A and B. Because exposure to an individual is likely to occur at both locations during a given time period, DuPont shall evaluate areas A and B together. According to DuPont's current evaluation, the resulting risk estimate will only be slightly higher than when each of the areas are considered separately. By removing areas FR19 and FR20, the majority of the risk will be eliminated. DuPont shall submit a revised closure plan meeting all requirements of Ohio Administrative Code Chapters 3745-65 and 3745-66. The revised plan must address the risk presented by both areas A and B combined.
15. **Section 8.0. Description of Removal Efforts and Treatment Processes.** DuPont shall reference OAC Rule 3745-66-14 in addition to 40 CFR 265.114 instead of 40 CFR 264.197(a).
16. **Section 10.0. Status of Facility After Closure.** DuPont must indicate that, after closure, the facility will still function as a Large Quantity Generator (LQG) of hazardous waste.
17. **Figure 2.** DuPont shall amend this figure to include a north arrow.
18. **Appendix B. Ohio EPA Correspondence. Figure 1.** The figure included in this section showing locations of samples and chemical concentrations associated with those samples is very helpful. No similar figure is included for the latest round of samples. DuPont shall include such a figure.

DuPont specifies in the *Note* at the bottom of the page that all results represent TCLP analyses, yet analytical results for metals are in mg/kg and for volatiles are in ug/kg. These two statements are inconsistent with each other. DuPont shall clarify if the results presented are TCLP results or if they are total constituent results. DuPont shall provide the analytical laboratory data report verifying the accuracy of these sample concentrations.

In this figure, it is apparent that methyl ethyl ketone (MEK) and acetone are present in some areas that were sampled. DuPont shall explain why MEK and acetone were not sampled for in later sampling events and why DuPont has not included these constituents in the risk assessment. If DuPont cannot explain why these constituents were not sampled for and included in the risk assessment, DuPont shall collect data to determine the concentrations of these constituents that are present in soils and shall include them in the quantitative risk evaluation.

19. **Section 4.1, Sampling Results and Appendix D, Analytical Results.** On page 8, DuPont states that soil borings were continuously sampled for three consecutive intervals. If this statement is correct, data for several sampling intervals is not included and it appears not all constituents were sampled for at all depths. DuPont shall explain this discrepancy. Additionally, the following analytical results in Appendix D shall be explained:
- a) No analytical data is included for VOCs in sample Tol-FR-1 (1.5-3.5). DuPont must either include this information or explain why VOCs were not analyzed for in the sample taken at this depth.
  - b) No analytical data is included for metals in sample Tol-FR-1 (3.5-5.5). DuPont must either include this information or explain why metals were not analyzed for in the sample taken at this depth.
  - c) No analytical data is provided for the sample taken (presumably) at 1.5 to 3.5 feet for sample Tol-FR-21. DuPont must submit this data or explain why no sample was taken of the upper soils at this location.
  - d) No analytical data is provided for the sample taken (presumably) at 3.5-5.5 feet for sample Tol-FR-3. DuPont must submit this data or explain why no sample was taken at this depth and location.
  - e) No explanation as to the identity of sample Tol-FR-31 is provided. As this sample is not included on Figure 3 or designated with a common prefix such as BG or FBLK, there is no way to tell what this sample represents. DuPont shall explain where sample Tol-FR-31 was taken and what media it represents. If the sample was a soil sample, it must be included on Figure 3.
  - f) No explanation as to the identity of sample BG-17 is provided. Is this a background sample? And if so, are there a total of 13 background samples, instead of twelve? DuPont shall provide an explanation.
20. **General Comment.** DuPont shall state in the plan that the Ohio EPA Northwest District Office inspector, Mike Terpinski, shall be notified of all critical activities at least 5 working days before any activity begins.

DuPont shall address the following comments from the Ohio EPA's Division of Drinking and Ground Waters:

1. **Section 4.2.2.** This section of the report states that elevated PID readings were detected from soil samples collected at two locations on the western portion of the container storage pad (FR13 and FR14) and that one soil sample collected at boring FR7 on the southeastern part of the container storage pad exhibited a slightly elevated headspace reading. Figure 3 of the report indicates that boring location FR7 is the next boring location to the north of boring FR13. Therefore, boring location FR7 is approximately located in the west-northwest part of the container storage pad, and not the southeastern part. DuPont shall revise the text of Section 4.2.2 to correct the location of boring FR7 or Figure 3 should be corrected to reflect the appropriate location of the boring.

2. **Appendix C.** The soil boring logs which are summarized in Appendix C do not include the previous work completed by Heritage Remediation Engineering or a copy of the well construction log for temporary monitor well TW-12. Also, blow counts for the soil borings are not included in Appendix C of the DuPont report. The previous soil boring logs from the October 4, 1993 Heritage Remediation Engineering report should be included in the revised closure plan. Blow counts provide useful information regarding the cohesiveness of soils, and should be included in the revised closure plan. Ohio EPA would prefer that the boring logs be listed individually and not summarized in a table which does not include sufficient detail.

DuPont shall explain the elevated PID results obtained at sample locations BG1 through BG12, which are background locations. DuPont shall provide information regarding the background reading obtained from the PID used and regarding the type of equipment, lamp, and calibration procedures used.

3. A review of the soil boring logs contained in Appendix C indicates that the majority of the geologic materials beneath the storage pad consist of fine sand. While it may be argued that the sands may consist of a localized deposit contained or interbedded within a clay rich till matrix, soil boring logs from FR1, FR2, FR6, FR8, FR10, and FR14 indicate saturated conditions in the sand.

Because of the vulnerability of the underlying geologic materials to ground water contamination, DuPont shall investigate the potential for ground water contamination. DuPont shall define the vertical and horizontal extent of contamination as stated in comment no.8 above. If it is determined that contamination is superficial and has not yet reached the saturated zone, DuPont will not be required to investigate ground water or to include the ground water pathway in the risk assessment. If it is determined that contamination has reached the saturated zone, DuPont is required to investigate the potential for ground water contamination by installing a minimum of 4 ground water monitoring wells and collecting data from those wells. A minimum of eight (8) consecutive quarterly ground water sampling events is required for all owner/operators of hazardous waste management units where a release to ground water has occurred.

If the owner/operator is able to achieve "clean" closure through a risk assessment demonstration (inclusive of the ground water pathway) after eight quarters of ground water monitoring, has conducted its ground water monitoring in accordance with 3745-65-90 (D) of the OAC, and has certified closed in accordance with OAC Rule 3745-66-15, then ground water monitoring shall no longer be required.



State of Ohio Environmental Protection Agency

STREET ADDRESS:

1800 WaterMark Drive  
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

RECEIVED

FEB 12 1996

OFFICE OF RCRA  
WASTE MANAGEMENT DIVISION  
EPA, REGION V

February 8, 1996

Re: Completion of Closure  
Perfection Finishers, Inc.  
HW Incinerator & Storage Areas  
OHD005041405

Mr. D. Ross Strayer, President  
Perfection Finishers, Inc.  
1151 N. Ottokee Street  
Wauseon, Ohio 43567

Dear Mr. Strayer:

According to Ohio EPA records, on November 23, 1992, the Director of the Ohio EPA approved a closure plan for Perfection Finishers, Inc., 1151 N Ottokee Street, Wauseon, Ohio 43567. The plan concerned a hazardous waste incinerator and storage areas at the facility. On August 25, 1995, Ohio EPA received initial certification documents stating that the incinerator and storage areas had been closed according to the specifications in the approved closure plan. Subsequent documents were received on September 26, 1995, October 20, 1995, and January 3, 1996. Ohio EPA District Office personnel completed a closure inspection on February 13, 1995 and a final review of documents pertaining to the storage areas and incinerator on January 11, 1996.

Based on this inspection and review, the Ohio EPA has determined that the hazardous waste incinerator and storage areas have been closed in accordance with the approved closure plan and Rules 3745-66-12 through 3745-66-15 of the Ohio Administrative Code (OAC). Perfection Finishers, Inc., will continue to operate as a large quantity generator of hazardous waste with a less than 90 day storage pad following the closure certification of the above units.

As specified in OAC Rule 3745-66-40, Perfection Finishers, Inc., will not be required to maintain financial assurance for closure costs and liability coverage for accidental occurrences at this location, in accordance with OAC Rules 3745-66-43(H) and 3745-66-47(E).

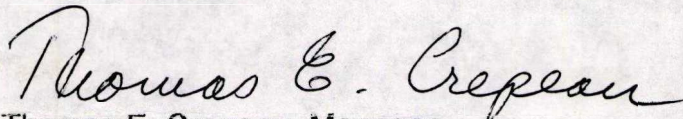
Please note that this letter does not relieve the facility of any corrective action responsibilities that may be required.

George V. Voinovich, Governor  
Nancy P. Hollister, Lt. Governor  
Donald R. Schregardus, Director

Perfection Finishers, Inc.  
Completion of Closure  
Page 2

If you have any questions concerning the closure process or the current status of the facility, please contact the Ohio EPA, Northwest District Office, Attn: Timothy Killeen, 347 North Dunbridge Road, Bowling Green, Ohio 43402, tel: (419) 352-8461.

Sincerely yours,



Thomas E. Crepeau, Manager  
Data Management Section  
Division of Hazardous Waste Management

cc: Harriet Croke, U.S. EPA, Region 5 ✓  
Montee Suleiman, DHWM  
Maria Velalis, DHWM  
Laurie Stevenson, DHWM  
Timothy Killeen, NWDO



State of Ohio Environmental Protection Agency

A.4.1

STREET ADDRESS:

MAILING ADDRESS:

WaterMark Drive  
mbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

P.O. Box 1049  
Columbus, OH 43216-1049

February 2, 1996

Re: Receipt of Closure Plans  
U.S. EPA ID No.  
OHD005041843

Mr. James M. Connor  
DuPont Environmental Remediation Services  
Barley Mill Plaza 27  
Route 141 and 48  
Wilmington, DE 19806

Dear Mr. Connor:

With this letter the Ohio EPA acknowledges receipt of two hazardous waste closure plans submitted for DuPont Automotive Products, 1930 Tremainsville Road, Toledo, Ohio 43613. The closure plans concern the facility's hazardous waste container storage area and the hazardous waste Tank 13 area. A public notice concerning receipt of the plans will appear the week of February 5, 1996 in the legal notice section of the Toledo Blade newspaper. The Director of Ohio EPA will act upon the plans after the close of the public comment period on March 8, 1996.

A copy of the two closure plans will be available for public review at the Toledo-Lucas County Public Library, West Toledo Branch, 1320 Sylvania Avenue, Toledo, Ohio 43612, and at the Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402, tel:(419) 352-8461.

Please contact Mike Terpinski of the Northwest District Office if you have any questions on this matter.

Sincerely,

Vanessa Gregory, Management Analyst  
Data Management Section  
Division of Hazardous Waste Management

cc: Harriet Croke, U.S. EPA, Region 5  
Montee Suleiman, DHWM  
Mike Terpinski, NWDO

George V. Voinovich, Governor  
Nancy P. Hollister, Lt. Governor  
Donald R. Schregardus, Director

PUBLIC NOTICE

LUCAS COUNTY

NOTICE OF RECEIPT OF HAZARDOUS WASTE CLOSURE PLANS

Notice is hereby given of the receipt on January 22, 1996 of two hazardous waste closure plans from DuPont Automotive Products, 1930 Tremainsville Road, Toledo, Ohio 43613, U.S. EPA I.D. No. OHD005041843. The plans concern the hazardous waste container storage area and Tank 13 area at the site indicated above. Notice is given pursuant to Rule 3745-66-10 through 17 of the Ohio Administrative Code and 40 CFR, Subpart G, 265.110 through 117. The Ohio EPA is also giving notice that this facility is subject to a determination concerning corrective action, a requirement under the Hazardous & Solid Waste Amendments of 1984, which concern any possible uncorrected releases of hazardous waste or hazardous waste constituents to the environment from any current or previous solid waste management units at the above facility. A corrective action determination is required from hazardous waste facilities intending to close.

Copies of the facility's closure plans will be available for public review at the Toledo-Lucas County Public Library, West Toledo Branch, 1320 Sylvania Avenue, Toledo, Ohio 43612, and at the Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402, tel: (419) 352-8461. Comments concerning this plan or factual information concerning any releases of hazardous waste or hazardous waste constituents by the above facility requiring corrective action may be submitted within 30 days of this notice to the Ohio EPA, Division of Hazardous Waste Management, Attn: Data Management Section, P.O. Box 1049, 1800 Watermark Dr., Columbus, Ohio 43216-1049, tel: (614) 644-2977.



of Ohio Environmental Protection Agency

Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020  
FAX (614) 644-2329

George V. Voinovich  
Governor

August 12, 1994

NOTICE OF DEFICIENCY  
Re: CLOSURE PLAN  
E.I. DuPont de Nemours and Co., Inc.  
OHD 005 041 843

CERTIFIED MAIL

Ms. Denise Trabbic-Pointer  
Du Pont Automotive Products  
1930 Tremainsville Road  
Toledo, Ohio 43613

RECEIVED  
WMD RECORD CENTER

AUG 24 1994

Dear Ms. Trabbic-Pointer:

On December 1, 1993, a risk-based closure plan for a hazardous waste container storage pad (F-row) at E.I. DuPont de Nemours and Company, Inc., located at 1930 Tremainsville Road, Toledo, Ohio, was received by the Director of the Ohio EPA.

This closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that E.I. DuPont's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to comment on the plan by a public notice published the week of December 13, 1993. No comments were received by Ohio EPA in this matter.

Pursuant to OAC Rule 3745-66-12 (D)(4), I am providing you with a list of deficiencies in the plan, outlined in Attachment A.

Please take notice that OAC Rule 3745-66-12 requires that a modified closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of receipt of this letter.

The modified closure plan shall be in accordance with the following editorial protocol or convention:

1. Old language is over-struck, but not obliterated.
2. New language is capitalized.
3. Page headers should indicate date of submission.



Ms. Denise Trabbic-Pointer

Page Two

4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete section provided as required.

The modified closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Thomas Crepeau, Manager, Data Management Section, P.O. Box 1040, Columbus, Ohio, 43266-0149. A copy should also be sent to: Mike Terpinski, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

Upon review of the resubmitted plan, I will prepare and issue a final action approving or modifying such plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Kim Smith, Ohio EPA, DHWM, Central Office, (614) 644-2967 or Mike Terpinski at (419) 352-8461.

Sincerely,

  
Donald R. Schregardus  
Director

DRS/mrt/jlm

pc: Tom Crepeau, DHWM, Central File, Ohio EPA  
Harriet Croak, U. S. EPA, Region V  
Joel Morbito, U. S. EPA, Region V  
Kim Smith, Ohio EPA, CO  
Mike Terpinski, Ohio EPA, NWDO

Attachment A  
E.I. DuPont deNemours and Co.

**Concerns in Data Collection and Evaluation for Soil**

1. In Section 1.0, E.I. DuPont has not provided enough text to allow for review of this risk assessment as a stand alone document. E.I. DuPont needs to provide adequate references to the closure plan approved 12/13/90. Of particular importance is the inclusion of a map showing dimensions of the unit and the location of all soil borings and monitoring wells used in the F-row risk assessment closure plan. This map is essential in determining if the full extent of soil contamination has been defined.
2. E.I. DuPont must also show all calculations used to extrapolate the risk assessment data. Maximum concentrations of contaminants are included in the plan, but no calculations are shown actually using this data. Use of computer modeling is acceptable for summaries, but calculations for all exposure pathways must be worked out explicitly in the plan.
3. The plan, as submitted by E.I. DuPont, does not define the full extent of soil contamination. No map of the area sampled is provided which shows the location of all soil borings (including background) is included in this plan.

**Concerns in Data Collection and Evaluation for Ground Water**

4. E.I. DuPont must state the reason that only one monitoring well is used as a platform for all groundwater evaluation criteria. It would seem appropriate for a storage pad the size of F-row to have multiple monitoring wells.
5. E.I. DuPont must provide a description of the detection and/or assessment ground water monitoring program, if any, that has been conducted throughout the life of F-row.
6. On page 2 of the summary provided by Heritage, the text states "... the screen length is 5 feet. The total well depth is approximately 48". This ambiguity must be clarified.
7. The ground water bearing zone being monitored is not adequately described. The following material is missing from the text:
  - a. Section 1.1, page 2. "Attachment 1" is mentioned in the text but not provided. Attachment 1 must be provided.

## E. I. Dupont Comments

Page Two

- b. Section 2.0, page 3. "Attachment 2" is mentioned, but not provided. Attachment 2 and any additional attachments necessary for review of this risk assessment must be provided.
- c. Heritage Summary, page 1. On page 1, a "Figure 1" is mentioned but not included. Figure 1 and any additional figures necessary for review of this risk assessment must be provided.
- d. Heritage Summary, page 2. On page 2, an "Appendix A" is referred to, but not included. Appendix A and any additional appendices necessary for review of this risk assessment must be provided.

When all information listed above is provided, it can be determined if enough information is available to adequately describe this zone. Additional soil borings and/or wells may be needed once all information is reviewed.

- 8. Determination of xylene in B-19 at the 8-10 feet depth will require additional borings or monitoring wells to determine the vertical and lateral extent of contamination.

### Concerns in Exposure Assessment

- 9. E.I. DuPont has not taken into consideration the future use of the property. A narrative description stating that an unrestricted future land use scenario was used when preparing the plan must be included.
- 10. E.I. DuPont does not include a map of the facility including F-row, the dimensions of this area, or a map of the area sampled which includes sampling locations. For this reason, it is not possible to determine if all exposure stated in the plan is within the boundaries of the unit. E.I. DuPont must make this distinction clear.
- 11. On page 4 of Section 1.0, E.I. DuPont mentions that samples from the concrete scarification of F-row were collected in roll-off boxes and mixed to form a composite sample. It is unclear as to why E.I. DuPont would analyze a composite of this sample, except for the possible characterization of the off-site shipment of this material. E.I. DuPont must explain their rationale for the inclusion of this information, or remove it from the text.

12. On tables 7 and 8, E.I. DuPont references uncertainty and modifying factors. Although these values are listed in the Integrated Risk Information System (IRIS), they are not directly used in RCRA risk assessments. The exact purpose for these factors is not explained in these tables and it does not appear the factors have been used to alter any calculation values. OEPA recommends the removal of these uncertainty and modifying factors from the text unless E.I. DuPont can provide a reasonable verification as to why these factors have been included in this risk assessment.
13. On page 2 of the "Exposure Calculations for DuPont Toledo APD" section, E.I. DuPont separates "Inhalation of Vapors Inside Residence" and "Inhalation of Vapors while Showering". This is confusing as there is no "Inhalation of Vapors Inside Residence" pathway addressed in RCRA closures. If E.I. DuPont wishes to explore this pathway, it must be added to the "Inhalation of Vapors while Showering" pathway.
14. On Page 5 of Section 1.0, E.I. DuPont states that they used 0.19 ppm for all sample results below detection limits. This information is then apparently used to derive the Toxicity Characteristic Leaching Procedure (TCLP) concentration of barium. E.I. DuPont must clearly state why the value of 0.19 ppm was used for all sample results below detection limits and just how this information may be used to determine the correct concentration of barium in the soil underlying the pad.
15. On Page 6 of Section 1.0, E.I. DuPont states "Two water samples collected from the tank wagon used to store rinse water from the pad and sewer system flushing contained lead at 9.8 and 2.2 mg/L. The sampled water contained high volumes of suspended solids and was acidified in the field which may account for the elevated values. No other parameters were tested for in these two samples.". OEPA sees no reason why a field acidification would affect lead levels in these samples. The acidification reference should be stricken from the plan.
16. In the sections labelled "Risk Summary for All Scenarios-Carcinogenic Risks" and "Risk Summary for All Scenarios- Non-Cancer Risks", E.I. DuPont shows two sets of data for inhalation of vapors-inhalation of water vapor outside residence and inhalation of vapors inside residence. OEPA

assumes that the inhalation of water vapors inside is actually the "Inhalation of Airborne Chemicals- Showering" pathway, but requests that E.I. DuPont use the terminologies given in the OEPA document Closure Plan Review Guidance for RCRA Facilities. Inhalation of outside water vapors is not a parameter addressed in RCRA risk assessments. E.I. DuPont must either remove this information or state exactly its (the information's) intended purpose in compliance with the Closure Plan Review Guidance for RCRA Facilities. OEPA reminds E.I. DuPont that it is extremely difficult to review a complex document such as a risk assessment when proper terminology is not used consistently within the document.

17. E.I. DuPont uses TCLP data for the concentrations of chemicals underlying the storage pad (F-row). All data used in risk assessments must be **total** concentration. If TCLP values are used, they would be inherently smaller values and may underestimate the risk from a hazardous waste unit. E.I. **DuPont must resample the area underlying F-row and use the proper analytical method** (totals). These total values must then be used in preparing the risk assessment. Background sampling data need not be repeated.
18. E.I. DuPont further decreases the values used in the "Ingestion of Chemicals in Soil and Dust" and "Dermal Exposure to Chemicals in Soil" by using a conversion factor of 0.000001. The values are decreased by using a conversion factor of 0.001 for "Dermal Contact with Chemicals in Water", Table 5-1. A conversion factor of 100.0 is used in "Dermal Contact with Chemicals in Water", Table 5-2. E.I. DuPont must use the calculations found in the Closure Plan Review Guidance for RCRA Facilities.
19. The calculations used to determine the intake (administered dose) for ingestion and inhalation pathways must be shown for all chemicals. All calculations must be shown from start to finish.
20. The calculations used to determine absorbed dose for dermal pathways must be shown for all chemicals. All calculations must be shown from start to finish.

21. On pages ten through twelve of the "Risk Calculations for DuPont Toledo APD" section and pages fourteen through twenty of the "Exposure Calculations for DuPont Toledo APD" section, E.I. DuPont lists the influence of alternative parameters on this risk assessment. Variables include average values for all exposure parameters, "actual" values used, and reasonable maximum exposure (default) values for all parameters. None of these alternative parameters are necessary for risk assessment calculations. This information serves no useful purpose and should be removed from the text for the sake of clarity.

#### **Concerns in Reviewing the Toxicity Assessment**

23. E.I. DuPont does not use the latest reference doses (RfDs) as listed in IRIS. The RfD for barium is listed as  $5.0E-2$  by E.I. DuPont. The proper RfD for barium is  $7.0E-2$ , per IRIS. E.I. DuPont lists the RfD for MEK as  $5.0E-2$ . The proper RfD for MEK is  $6.0E-1$ , according to IRIS. E.I. DuPont must use these values in preparing this risk assessment. These values are subject to change. E.I. DuPont must use the most current RfDs as stated in IRIS.
24. Throughout the plan, E.I. DuPont uses the terms "Average Daily Dose (ADD)", "Unit Risk", and "Lifetime Average Daily Dose (LADD)". Synonyms are given in some places, but these synonyms are not consistently supplied. E.I. DuPont is reminded that the F-Row closure is a RCRA closure and that ADD, Unit Risk, and LADD are not used in RCRA closures. E.I. DuPont shall use only terms and variables found in the Closure Plan Review Guidance for RCRA Facilities.

#### **Conclusions in Risk Assessment**

25. Given E.I. DuPont's lack of supporting data, it is not possible to determine if their conclusion that the upper-bound cancer risk is less than  $1.0E-6$  is an accurate one. It would seem unlikely that the upper-bound cancer risk is less than  $1.0E-6$  given E.I. DuPont's use of TCLP analytical values and extra conversion factors when calculating the risk values for F-row.

26. Given E.I. DuPont's lack of supporting data, it is not possible to determine if their conclusion that the hazard index is less than one is an accurate one. It would seem unlikely that the hazard index would be less than one given E.I. DuPont's use of TCLP analytical values and extra conversion factors when calculating the risk values for F-row. E.I. DuPont must include data containing at least, but not necessarily limited to, the following information: a site map including the hazardous waste management unit (F-row) and all sampling points associated with F-row's closure; a detailed description of why only one monitoring well was used to determine if there was any impact to groundwater as a result of the operation of F-row; calculations following the protocols set forth in the Closure Plan Review Guidance for RCRA Facilities; the most current RfDs and Rfcs, as found in IRIS or HEAST.
27. Nowhere in the closure plan is it stated what contaminant levels E.I. DuPont intends to reach, if acceptable risk is exceeded, before it considers this area "clean" for each of the respective chemicals.
28. E.I. DuPont must describe the total volume of scarification scrapings and rinseate water generated and sent off-site as a result of the closure of F-row. Copies of manifests for these off-site shipments of waste must be included with E.I. DuPont's final certification statement at completion of closure. E.I. DuPont must include data containing at least, but not necessarily limited to, the following information: a site map including the hazardous waste management unit (F-row) and all sampling points associated with F-row's closure; a detailed description of why only one monitoring well was used to determine if there was any impact to groundwater as a result of the operation of F-row; calculations following the protocols set forth in the Closure Plan Review Guidance for RCRA Facilities; the most current RfDs and Rfcs, as found in IRIS or HEAST.



State of Ohio Environmental Protection Agency

Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
644-3020  
(614) 644-2329

RECEIVED  
AUG 08 1994

George V. Voinovich  
Governor

Donald R. Schregardus  
Director

OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

August 3, 1994

NOTICE OF DEFICIENCY  
RE: AMENDED CLOSURE PLAN  
E.I. DUPONT DE NEMOURS  
AND CO. INC.  
OHD 005 041 843

**CERTIFIED MAIL**

Ms. Denise Trablic-Painter  
DuPont Automotive Products  
1930 Tremainsville Road  
Toledo, Ohio 43613

RECEIVED  
WMD RECORD CENTER

AUG 15 1994

Dear Ms. Trablic-Painter:

On July 7, 1990, Ohio EPA received from E.I. DuPont de Nemours and Co., Inc. a closure plan for fourteen (14) hazardous waste storage tanks located at 1930 Tremainsville Road, Toledo, Ohio. On December 13, 1990, the closure plan was approved. On April 14, 1993, Ohio EPA received an amended closure plan for one hazardous waste storage tank (tank 13).

This amended closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that the E.I. DuPont's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the amended closure plan in accordance with OAC Rule 3745-66-12. The public comment period extended from December 13, 1993 through December 17, 1993. No public comments were received by Ohio EPA.

Pursuant to OAC Rule 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the amended plan, outlined in Attachment A.

Please take notice that OAC Rule 3745-66-12 requires that a modified amended closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter.

Ms. Denise Trablic-Painter - DuPont Automotive Products  
Page Two

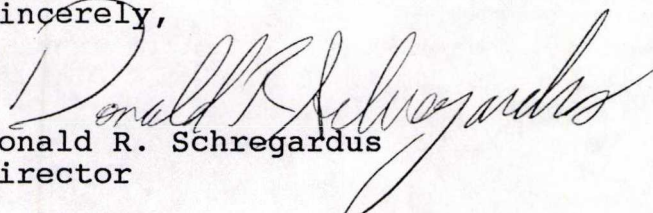
The modified amended closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The modified amended closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Manager, Data Management Section, 1800 WaterMark Drive, P.O. Box 163669, Columbus, Ohio 43216-3669. A copy should also be sent to: Mike Terpinski, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

Upon review of the resubmitted plan, I will prepare and issue a final action approving or modifying such plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Mike Terpinski at (419) 352-8461 or Kim Smith, Ohio EPA, DHWM, Central Office (216) 963-1258.

Sincerely,

  
Donald R. Schregardus  
Director

DRS/KS/fwn

cc: Tom Crepeau, DHWM Central File, Ohio EPA  
Joel Morbito, U.S. EPA, Region V  
Harriet Croke, U.S. EPA, Region V  
Closure Unit Supervisor, CO, Ohio EPA  
Kim Smith, Ohio EPA, CO  
Mike Terpinski, Ohio EPA, NWDO

## ATTACHMENT A

1. E.I. DuPont shall prepare a closure plan which is able to stand alone as a complete, independent document, with minimal reference to other documents. In practical terms, an independent, third party contractor must be able to make an accurate bid on the project using the information in the closure plan submission. Similarly, the public must be able to ascertain the full scope of the project from the submission provided (by Ohio EPA) to the public library. A risk assessment is a type of closure and would follow this closure plan guidance.
2. Ohio EPA recommends that E.I. DuPont utilizes the entire May 1, 1991 or the updated September 1, 1993 Closure Plan Review Guidance and attached Guidance for Reviewing Risk-Based Closure Plans for RCRA Units when preparing E.I. DuPont's response to the NOD. The items to be included in the risk assessment closure plan are explained in detail in the guidance.
3. E.I. DuPont shall include the laboratory data sheets and summaries of the data. E.I. DuPont shall demonstrate that the maximum concentration or the 95% UCL(Upper Confidence Limit) was used to calculate the risk assessment. E.I. DuPont shall demonstrate the constituents of concern at the unit for both soil and ground water. E.I. DuPont shall define the extent of contamination both vertically and horizontally.
4. E.I. DuPont shall also include a sampling and analysis plan, including a map and the dimensions of the unit. The boring and sample locations shall be marked on the map.
5. E.I. DuPont shall include a map of the facility in the closure plan.
6. E.I. DuPont shall list the chemical specific health-based standards.
7. E.I. DuPont shall include all equations and conversions included in the risk assessment. E.I. DuPont shall show an example of an intake or absorbed dose calculation followed by the toxicity assessment calculation. That calculation will give a hazard quotient or a risk value.
8. E.I. DuPont shall show the equations and variable values of any models, including the airborne contaminant concentration model, used in the risk assessment. The example of the airborne contaminant concentration model from the book Air Pollution: Its Origin and Control shall include values obtained from the E.I. DuPont closure.

9. E.I. DuPont shall determine the soil contaminant concentration and ground water contaminant concentration separately. E.I. DuPont shall analyze the organic carbon content of the soil in the unit if the organic carbon content is to be used to ultimately calculate the contaminant concentration in water from the contaminant concentration in soil. If ground water contamination is detected and confirmed, then the ground water contaminant concentration shall be based on the most conservative concentration of actual monitoring data (maximum concentration or 95% UCL on the monitoring well containing the worst contamination) or TCLP (maximum concentration).
10. E.I. DuPont shall use an unrestricted future land use scenario when preparing the risk assessment.
11. E.I. DuPont shall demonstrate that the constituents of concern identified are carcinogenic and/or not carcinogenic over all of the routes of exposure via IRIS(Integrated Risk Information System) reference.
12. E.I. DuPont shall use Verified Reference Doses (oral pathway) and Reference Concentrations (inhalation pathway) when calculating the risk assessment. E.I. DuPont shall use IRIS, before all other resources.

For all ingestion pathways, E.I. DuPont uses a value of 0.05 mg/kg/day for MEK. The correct value, per IRIS(June 23, 1994), is 0.6 mg/kg/day. E.I. DuPont shall use this value in their calculations. For all inhalation pathways, E.I. DuPont uses values of 2.0 mg/cu m for toluene and 0.3 mg/cu m for MEK. The correct values, per IRIS(June 23, 1994), are 0.4 mg/cu m and 1.0 mg/cu m, respectively. These values or updated values shall be used by E.I. DuPont in their calculations. E.I. DuPont shall include the IRIS update date from the IRIS system which was utilized.

13. E.I. DuPont shall derive the contaminant concentrations separately for the inhalation of volatiles while showering/bathing with contaminated water(ground water) pathway, and the inhalation of fugitive dust/volatiles pathway.
14. E.I. DuPont shall explain how "Conversion factor (CF)-Table 5 used as if 100% is absorbed" relates to the value .001 l/cm<sup>2</sup>, and E.I. DuPont shall explain why the units are l/cm<sup>2</sup> instead of l/cm<sup>3</sup>.
15. E.I. DuPont shall include a brief description of how the other 13 tanks included in the original closure plan submittal were or will be addressed and handled.

16. E.I. DuPont shall use the measurement of mg/L as the contaminant concentration in ground water in Table 4 and Table 5 instead of mg/kg.
17. E.I. DuPont shall separately calculate the risk assessment for an adult and a child over all of the pathways and all of the contaminants.
18. E.I. DuPont shall use Skin Surface Area=20,000 cm<sup>2</sup> instead of 18,150 cm<sup>2</sup> in Table 5.
19. E.I. DuPont shall use Exposure Time=.8 hrs/day instead of .008 hrs/day in Table 5.
20. E.I. DuPont shall use chemical specific oral absorption factors. ASTDR(Agency for Toxic Substances and Disease Registry) Profiles(USEPA documents) may be used as a reference. If a chemical specific oral absorption factor is not available, 1.0 shall be used.
21. E.I. DuPont shall demonstrate why 0.1 cm/hr was used as the dermal permeability constant for all constituents of concern. E.I. DuPont shall include the reference for this value. Chemical-specific values for permeability constants should be sought in referred journals and other suitable technical publications. When pursuing values found in the literature, always include a complete citation. Refer to Dermal Exposure Assessment : Principles and Applications(USEPA, 1992a)
22. E.I. DuPont shall include only the chronic toxicity values and subsequent calculations rather than the chronic and subchronic toxicity values and subsequent calculations.
23. E.I. DuPont shall demonstrate what the soil make-up, stratification, and topography are at the site.
24. E.I. DuPont shall demonstrate that further excavation would jeopardize other structures. E.I. DuPont shall also explain why shoring can not be utilized.
25. E.I. DuPont shall recalculate the hazard index and risk after addressing the previously mentioned deficiencies.
26. E.I. DuPont shall state that the closure plan will be amended if the risk assessment is not protective of human health and the environment.



State of Ohio Environmental Protection Agency

Box 1049, 1800 WaterMark Dr.  
mbus, Ohio 43266-0149  
) 644-3020  
FAX (614) 644-2329

George V. Voinovich  
Governor

Donald R. Schregardus  
Director

January 5, 1994

Re: Receipt of Closure Plan  
U.S. EPA ID No.  
OHD005041843

E.I. du Pont de Nemours & Company  
Attn: Denise Trabbic-Pointer  
1930 Tremainsville Rd.  
Toledo, Ohio 43613

Dear Ms. Trabbic-Pointer:

With this letter the Ohio EPA acknowledges receipt of the amended hazardous waste closure plan received by the Ohio EPA central office on November 9, 1993 for tanks 2-13 & 15. A public notice concerning receipt of the plan and its availability for public review will appear the week of January 10, 1994, in the Toledo Blade. The Director of the Ohio EPA will act upon the closure plan after the close of the public comment period on February 15, 1994.

A copy of the amended closure plan will be made available for public review at the Toledo-Lucas County Public Library, West Toledo Branch, 1320 Sylvania Ave., Toledo, Ohio 43612, and at the Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402, tel: 419-352-8461.

Please contact the Ohio EPA, Northwest District Office, if you have any questions on this matter.

Sincerely yours,

Thomas E. Crepeau, Manager  
Data Management Section  
Division of Hazardous Waste Management

cc. Harriet Croke, U.S. EPA, Region 5  
Randy Meyer, DHWM  
Mike Terpinski, NWDO



Printed on recycled paper

PUBLIC NOTICE

LUCAS COUNTY

NOTICE OF RECEIPT OF HAZARDOUS WASTE CLOSURE PLAN

Notice is hereby given of the receipt on November 9, 1993 of an amended hazardous waste closure plan from E.I DuPont deNemours & Company, 1930 Tremainsville Rd., Toledo, Ohio 43613. U.S. EPA ID No. OHD005041843. The plan concerns closure of hazardous waste storage tanks 2-13 & 15 at the plant located at the address indicated above. A copy of the plan will be available for public review at the Toledo-Lucas County Public Library, West Toledo Branch, 1320 Sylvania Avenue, Toledo, Ohio 43612, and at the Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402, tel: 419-352-8461, attn: Mike Terpinski. Comments concerning the closure plan may be submitted within 30 days of the date of this notice to Ohio EPA, Division of Hazardous Waste Management, Attn: Data Management Section, 1800 Watermark Dr., Columbus, Ohio 43215, tel: 614-644-2977.

—



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
mbus, Ohio 43266-0149  
644-3020  
(614) 644-2329

George V. Voinovich  
Governor

Donald R. Schregardus  
Director

December 7, 1993

Re: Receipt of Closure Plan  
U.S. EPA ID No.  
OHD005041843

E.I. du Pont de Nemours & Company  
Attn: Denise Trabbic-Pointer  
1930 Tremainsville Rd.  
Toledo, Ohio 43613

Dear Ms. Trabbic-Pointer:

With this letter the Ohio EPA acknowledges receipt of the hazardous waste amended closure plan for the container storage pad (F row) at the E. I. du Pont plant in Toledo. A public notice concerning receipt of the plan and its availability for public review will appear the week of December 13, 1993, in the Toledo Blade. The Director of the Ohio EPA will act upon the closure plan after the close of the public comment period on January 21, 1994.

A copy of the closure plan will be made available for public review at the Toledo-Lucas County Public Library, West Toledo Branch, 1320 Sylvania Ave., Toledo, Ohio 43612, and at the Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402, tel: 419-352-8461.

Please contact the Ohio EPA, Northwest District Office, if you have any questions on this matter.

Sincerely yours,

Thomas E. Crepeau, Manager  
Data Management Section  
Division of Hazardous Waste Management

cc. Harriet Croke, U.S. EPA, Region 5  
Randy Meyer, DHWM  
Mike Terpinski, NWDO

PUBLIC NOTICE

LUCAS COUNTY

NOTICE OF RECEIPT OF HAZARDOUS WASTE CLOSURE PLAN

Notice is hereby given of the receipt on December 3, 1993, of an amended hazardous waste closure plan from E.I. du Pont de Nemours & Company, 1930 Tremainsville Rd., Toldedo, Ohio 43613. The plan concerns a hazardous waste container storage pad (F row) at the facility indicated above. U.S. EPA ID No. OHD005041843. A copy of the plan will be available for public review at the Toledo-Lucas County Public Library, West Toledo Branch, 1320 Sylvania Avenue, Toledo, Ohio 43612, and at the Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402, tel: 419-352-8461, attn: Division of Hazardous Waste Management. Comments may be submitted within 30 days of the date of this notice to Ohio EPA, Division of Hazardous Waste Management, Attn: Data Management Section, 1800 Watermark Dr., Columbus, Ohio 43215, tel: 614-644-2977.



State of Ohio Environmental Protection Agency

O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
4) 644-3020  
AX (614) 644-2329

George V. Voinovich  
Governor

Re: CLOSURE PLAN EXTENSION  
E.I. DuPont DeNemours & Company  
OHD 005 041 843

November 1, 1993

CERTIFIED MAIL

E.I. DuPont DeNemours and Company  
c/o Ms. Denise Trabbic-Pointer  
1930 Tremainsville Road  
Toledo, Ohio 43613

Dear Ms. Trabbic-Pointer:

On August 27, 1993, E.I. DuPont DeNemours & Company (E.I. DuPont) submitted a request for an 180 day extension to the closure period specified in the approved closure plan for the former hazardous waste storage area (F-row) as entered into the Directors Journal on March 11, 1993. The August 27, 1993, letter requested an extension of the closure period an additional 111 days from September 11, 1993 until January 1, 1994. This extension request was submitted pursuant to Ohio Administrative Code (OAC) 3745-66-13 (B) as closure will require longer than the 180 day period specified in OAC Rule 3745-66-13. E.I. DuPont has requested this extension as a result of ongoing closure activities at the site.

My staff reviewed your request and recommends that the extension be granted per Rule 3745-66-13 (B) of the Ohio Administrative Code. I concur and am therefore granting this extension request. This extension is being granted for the above referenced closure plan and expires on January 1, 1994.

E.I. DuPont shall continue to take all steps to prevent a threat to human health and the environment from the unclosed, but inactive waste management unit per OAC Rule 3745-66-13 (B)(2).

Please be advised that approval of this closure extension request does not release E.I. DuPont from any responsibilities as required under the Hazardous and Solid Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

OHIO E.P.A.

NOV - 1 93

I certify this to be a true and accurate copy of the  
official document as filed in the records of the Ohio  
Environmental Protection Agency.

By: Mary Gavin Date NOV - 1 1993

ENTERED DIRECTOR'S JOURNAL

Ms. Denise Trabbic-Pointer

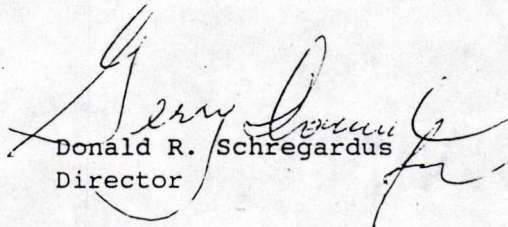
Page Two

When closure is completed, the OAC Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio Environmental Protection Agency (Ohio EPA) certification by the owner or operator and an independent professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. These certifications shall follow the format specified in OAC 3745-50-42 (D), and should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Data Management Section, P. O. Box 10049, Columbus, Ohio 43226-1049.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745-04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days from the receipt of this letter. A copy of the appeal must be served to the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Board. An appeal must be filed at the following address:

Environmental Board of Review  
236 East Town Street  
Room 300  
Columbus, Ohio 43215

Sincerely,

  
Donald R. Schregardus  
Director

MRT/rab

pc: Tom Crepeau, DHWM Central File, Ohio EPA  
Section Chief, Ohio Permit Section, USEPA Region 5  
Randy Meyer, DHWM, CO, Ohio EPA  
Mike Terpinski, DHWM, NWDO, Ohio EPA

I certify this to be a true and accurate copy of the  
official document as filed in the records of the Ohio  
Environmental Protection Agency.

By: Mary Cavin Date NOV - 1 1993

OHIO E.P.A.

NOV - 1 93

ENTERED DIRECTOR'S JOURNAL



of Ohio Environmental Protection Agency

Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020  
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RECEIVED JUN 18 1993  
WMD RCRA  
RECORD CENTER *Pass A*

George V. Voinovic  
Governor

March 11, 1993

CLOSURE PLAN APPROVAL

CERTIFIED MAIL

Re: CLOSURE PLAN  
E.I. DuPont de Nemours & Co.  
OHD 005 041 843

Ms. Denise Trabbic-Clement  
Environmental Technician  
E.I. DuPont de Nemours & Co.  
1930 Tremainsville Road  
Toledo, Ohio 43613

Dear Ms. Trabbic-Clement:

On May 20, 1992, E.I. DuPont de Nemours & Co. submitted to the Ohio Environmental Protection Agency (Ohio EPA) a closure plan for a hazardous waste container storage area (Line 1, S01) located at 1930 Tremainsville Road, Toledo, Ohio. Revisions to the closure plan were received on October 28, 1992. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that E.I. DuPont de Nemours & Co.'s proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of E.I. DuPont de Nemours & Co. in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of E.I. DuPont de Nemours & Co.'s submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste container storage area at 1930 Tremainsville Road, Toledo, Ohio, as modified herein, meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

OHIO E.P.A.

MAR 11 93

ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carvin Date 3-11-93

The closure plan submitted to Ohio EPA on May 20, 1992 and revised on October 28, 1992 by E.I. DuPont de Nemours & Co. is hereby approved with the following modifications:

1. **Section 1, page 2.** The plan must be amended to include a map of the facility. The facility's location must be shown on a clearly legible topographic or county map, plus a more detailed map or diagram of the facility with each hazardous waste management unit clearly located and identified.
2. **Section 2.0, page 3.** The plan proposes to perform closure of F-Row in two parts, but the exact method of segregation has not, as yet, been determined. E.I. DuPont must notify Ohio EPA, Northwest District Office (NWDO) of the exact method of segregation prior to initiating closure.
3. **Section 5.0, page 11.** The plan states that contaminated soils may be disposed of by either landfilling or "approved treatment methods of some kind." E.I. DuPont must state, in writing, the appropriate disposal method prior to initiating closure. If an on-site treatment method is chosen by E.I. DuPont, approval of the treatment process must be obtained through an amended closure plan.
4. **Section 5.0, Appendix III.** Appendix III mentions the field screening of samples using a photoionization detector (PID). Use of a PID is not an acceptable method of determining the validity of samples. All samples taken by E.I. DuPont must be analyzed for the appropriate constituents, unless the samples' validity is compromised by some unforeseen circumstance (sampler error, improper storage, etc.).
5. **Section 6, page 11.** The document entitled Safety and Health Plan RCRA Facility DuPont Toledo includes a map delineating work zones for the F-Row soil remediation. This map shows the decontamination zone located immediately adjacent to the "hot zone." The decontamination zone must be situated in such a manner that the support zone acts as a "buffer" between the "hot" zone and the decontamination zone.

OHIO E.P.A.

MAR 11 93

ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carvin Date 3-11-93

6. **Appendix III, pages III-5 & 6.** The plan mentions using a photoionization detector (PID) for field screening of samples. Use of a PID is not an acceptable method of determining if a sample should be submitted for analysis. All soil and rinseate samples collected must be analyzed for all applicable contaminants. The Toxicity Characteristic Leaching Procedure (TCLP) analytical method must be used rather than Total Constituent Analysis. Background (i.e., mean plus two times standard deviation) standards are to be used for metals only, and MDL standards are for non-naturally occurring constituents (i.e., organics). The closure plan is unclear about this distinction. It states "in the event listed hazardous waste constituents are found to be nondetectable in the background soils, the method's detection limit will be used as the clean standard for that individual constituent."
7. **Appendix IV, pages IV-3 & 4.** The plan states that the Tennant Scrubber will be decontaminated with a hot water/detergent wash followed by a triple rinse. A sample is to be taken from this third rinse. The plan does not clearly state how the container storage area is to be cleaned and rinsed. This area must be washed and triple rinsed, as well. A sample may be taken from the final rinse.
8. **Appendix IV, page IV-4.** The plan states: "Two VOC samples will be taken for both the comparison sample and the final rinseates. One of each of these samples will be screened by the ET in the Toledo Lab on the GC previous to sending all other samples to the Ponca City Lab. These will be run immediately before collection of Lab samples to ascertain whether it is advisable to spend the time and money for proper analysis." F-Row contains listed hazardous waste, as well as waste considered hazardous because of its characteristics. Therefore, it is unacceptable to sample only for VOC's in the rinseate. Additionally, this statement appears to say, in effect, "if the Toledo Lab finds no VOC's, no samples will need to be analyzed." This paragraph shall be stricken from the closure plan.

OHIO E.P.A.

MAR 11 93

ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 3-11-93

Ms. Denise Trabbic-Clement  
E. I. Dupont de Nemours & Company  
Page Four

9. **Appendix IV, page IV-4.** The plan states: "The entire container storage area to be tested (Part 1 or Part 2) will be rinsed with clean city water with the Tennant Scrubber. That rinse water will be sampled by the ET or qualified contractor and sent to Conoco Lab in Ponca City, OK, or another EPA/DUPONT approved lab. This will give a representative sample of the entire hazardous waste container storage unit." This statement is unclear. The concrete underlying the container storage area must be power washed with a water/detergent mixture followed by at least three separate rinses. A sample may be taken from the final rinse.
10. **Appendix IV, page IV-5.** The plan states that E.I. DuPont will build a temporary decontamination area/pit to accommodate the decontamination efforts. The specifications for this area must be submitted to Ohio EPA, NWDO prior to initiating closure activities.
11. E.I. DuPont must follow all signature requirements found in OAC 3745-50-42 and the owner/operator's certification statement must follow the exact wording found in OAC 3745-50-42 (D).
12. To confirm your understanding of the modifications, E.I. DuPont shall submit responses to each condition to Ohio EPA, Northwest District inspector, Mike Terpinski, in writing within thirty (30) days of approval of the closure plan. Where necessary, the district inspector may require changes to the responses to ensure compliance with OAC 3745-66-11 and OAC 3745-66-12. Delays in reaching final agreement on the responses cannot be used to delay closure without an extension of time being granted pursuant to OAC 3745-66-13. The 180 day closure period begins the day this letter is journalized.

All submissions required under this approval must be submitted to the following:

Michael R. Terpinski  
Ohio EPA  
Northwest District Office  
347 North Dunbridge Road  
P.O. Box 466  
Bowling Green, Ohio 43402-0466

OHIO E.P.A.

MAR 11 93

ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 3-11-93

Ms. Denise Trabbic-Clement  
E. I. DuPont de Nemours & Company  
Page Five

Please be advised that approval of this closure plan does not release E.I. DuPont de Nemours from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

Notwithstanding compliance with the terms of the closure plan, the Director may, on the basis that there is or has been a release of hazardous waste constituents, or hazardous substances into the environment, issue an order pursuant to Section 3734.20 et seq of the Revised Code or Chapters 3734 or 6111 of the Revised Code requiring corrective action or such other response as deemed necessary; or seek any appropriate legal or equitable remedies to abate pollution or contamination or to protect public health or safety to the environment.

Nothing here shall waive the right of the Director to take action beyond the terms of the closure plan pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.A. 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA"), or to take any other action pursuant to applicable Federal or State law, including but not limited to the right to issue a permit with terms and conditions requiring corrective action pursuant to Chapters 3734 or 6111 of the Revised Code, the right to seek injunctive relief, monetary penalties and punitive damages, to undertake any removal, remedial, and/or response action relating to the facility, and to seek recovery for any costs incurred by the Director in undertaking such actions.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.014 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

OHIO E.P.A.

MAR 11 93

ENTERED DIRECTOR'S JOURNAL

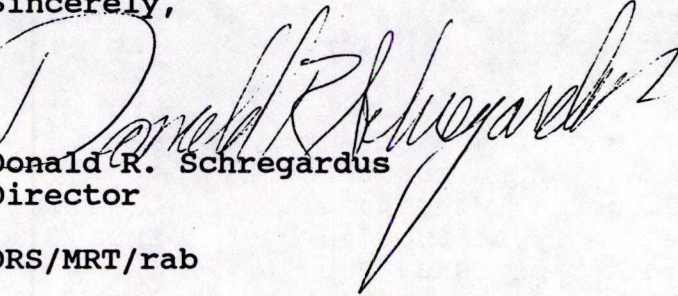
I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Gavin Date 3-11-93

Ms. Denise Trabbic-Clement  
E. I. DuPont de Nemours & Company  
Page Six

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and an independent, registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Thomas Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,



Donald R. Schregardus  
Director

DRS/MRT/rab

pc: Tom Crepeau, DHWM, CO  
Randy Meyer, DHWM, CO  
Section Chief, Ohio Permit Section, U.S. EPA, Region V  
Mike Terpinski, DHWM, NWDO

OHIO E.P.A.

MAR 11 93

ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Gavin Date 3-11-93



State of Ohio Environmental Protection Agency

Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
Tel) 644-3020  
FAX (614) 644-2329

George V. Voinovich  
Governor

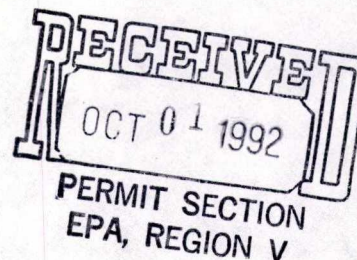
Page A  
S. Tol  
Rec'd. 10/25/92

**CERTIFIED MAIL**

**NOTICE OF DEFICIENCY**

September 25, 1992

E.I. DuPont de Nemours & Co.  
Attn: Mr. A. Parchomenko  
1930 Tremainsville Road  
Toledo, Ohio 43613



RE: CLOSURE PLAN  
E.I. DuPont de Nemours & Co.  
OHD 005 041 843/03-48-0195

Dear Mr. Parchomenko:

On May 20, 1992, Ohio Environmental Protection Agency (Ohio EPA) received from E.I. DuPont de Nemours & Co. (DuPont) a closure plan for a hazardous waste container storage area (Line 1, S01) located at 1930 Tremainsville Road, Toledo, Ohio.

This closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that DuPont's proposal for closure complies with the requirements of OAC Rules 3645-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan in accordance with OAC Rule 3745-66-12. The public comment period extended from June 15, 1992 through July 22, 1992. No public comments were received by Ohio EPA.

Pursuant to OAC Rule 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the plan, outlined in Attachment A.

Please take notice that OAC Rule 3745-66-12 requires that a modified closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter.

Mr. A. Parchomenko  
Page Two

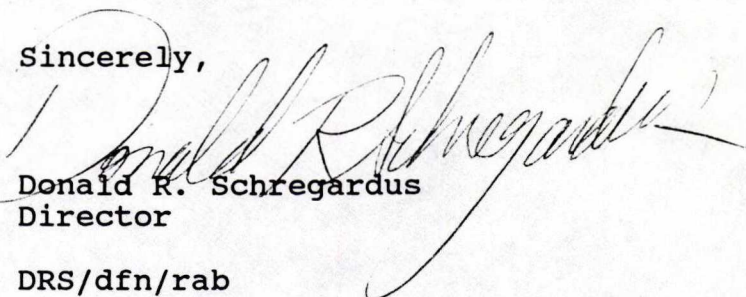
The modified closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The modified closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Manager, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149. Two copies should also be sent to: Don North, Ohio EPA, Northwest District Office, P.O. Box 466, Bowling Green, Ohio 43402-0466.

Upon review of the resubmitted plan, I will prepare and issue a final action approving or modifying such plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Don North at (419) 352-8461.

Sincerely,



Donald R. Schregardus  
Director

DRS/dfn/rab

pc: Tom Crepeau, DHWM, Central File, Ohio EPA  
Section Chief, Ohio Permit Section, USEPA, Region V  
Randy Meyer, CO, Ohio EPA  
Don North, Ohio EPA, NWDO

## **Attachment A**

1. **Section 2.0, pages 3 - 5.** The closure plan must clearly describe each area, component or structure that must be decontaminated.
2. **Section 2.0, pages 3 - 5.** This section must describe, in more detail, the storm water runoff system of the Container Storage Area. The plan must indicate how this system will be closed.
3. **Section 2.0, pages 4 & 5.** This section refers to Attachments 2 & 3. These attachments seem to document different drainage systems. Therefore, an explanation of the actual components in place at this time (including retention sump and catch basin) is necessary.
4. **Section 2.0, pages 3 - 5 and Attachment 2.** The plan (including drawings) must be revised to indicate that the area of the Container Storage Pad to be closed will include the area of F Row to the lowest point of drainage for the area.
5. **Section 3.0, pages 5 - 7 and Appendix II.** This section of the plan and Appendix II must list, by common name, each specific hazardous waste constituent; each compound which renders a waste characteristically hazardous; and each compound present in the facility's waste or any decomposition products found in the Appendix to Rule 3745-54-93 and Rule 3745-54-98.
6. **Section 3.0, pages 5 - 7 and Appendix II.** The plan must describe in detail the source and characteristics of the wastes listed in Table II-1 of Appendix II.
7. **Section 5.0, page 8.** The plan must explain what the container staging area is and a drawing must indicate where this area is, including its dimensions.
8. **Section 5.0, page 9.** The plan proposes to perform closure of F Row in two parts. Therefore, it must describe how the two parts (Part 1 and Part 2) will be separated to prevent contamination of the other during decontamination.
9. **Section 5.0, page 9.** The plan states, "It is proposed that contaminated soil not be addressed in this Closure Plan, but that it be addressed at final closure of the Facility". This is not acceptable. DuPont must include soil sampling, analysis and removal in this closure plan. A drawing of F Row must indicate the construction materials surrounding it (such as soil, concrete or asphalt).

10. **Appendix III, pages III-5 & 6.** It will not be possible for DuPont to use the action levels for Ohio Farm soils since the metals barium and mercury, present in wastes stored on F Row, are not included on the farm soils list. Therefore, Alternative A must be accomplished and described in the plan.

Alternative A - Soils in the closure area containing hazardous constituents shown to occur in nearby background soils unaffected by the RCRA unit or any other concentrated waste activities (e.g., air emissions or wastewater sludge management operations) shall be considered to be contaminated if the concentration of any hazardous constituent of concern in the soils underlying or surrounding the RCRA unit exceeds the upper confidence limit (i.e., mean concentration plus two standard deviations) for the background concentration of that constituent. Background samples shall be analyzed using total constituent analysis.

It is important the background soil be of the same type of soil horizon material as the comparison sample. Therefore, the plan must indicate that a description of the background soil type and potentially contaminated soil type will be recorded for each sample. Twelve background soil sampling points shall be selected to represent an area not directly affected by any concentrated waste management or product handling activities. All points and sampling data from these points shall be reviewed and approved by Ohio EPA. Analytical data from these points shall be submitted to the Northwest District within 10 days of receipt. The Ohio EPA may reject any sampling point. The plan must include a drawing indicating each background sampling location.

DuPont must demonstrate that both populations used in statistical comparison are normally distributed. If it is discovered that the populations are not normally distributed, DuPont shall search for a transformation that makes the populations approximately normal. The same transformation must be applied to both the background data as well as the data collected from the site in question.

If any hazardous constituent, identified in the waste and included in the list of constituents submitted by DuPont and approved by Ohio EPA, is found to be nondetectable in the background soils, then DuPont is to use the method detection limit for the individual constituent as the clean standard.

The plan must clearly state, where possible, the clean level for soil to be achieved.

11. **Appendix III, pages III-6 & 7.** The plan states that "an initial 18 samples will be taken" at F Row. The plan must clearly describe the method of sample collection. Figure III-2 only indicates 17 sample locations. Therefore it must be revised to indicate 18. In addition, DuPont must collect and analyze at least 10 samples from the soil surrounding F Row. These locations must be included in Figure III-2. Locations of soil samples must be selected to determine the full horizontal and vertical extent of all contaminants. Soil sampling must continue until this extent is determined. To determine the vertical extent of contamination in the upper 3-4 feet of soil, the sampling interval should not exceed one foot. However, concerning organics, sampling and analysis should be conducted for both the top layer and the next underlying layer, at a minimum.
12. **Appendix III, page III-7.** The plan mentions a description of the proper use of the thin-walled sampling device. This description must be included in the plan.
13. **Section 6.0, page 10.** The plan must include a copy of the document entitled Safety and Health Plan RCRA Facility DuPont Toledo. This document must include, but not be limited to, the following:
  1. Personnel levels of protection and the monitoring or knowledge to be used to determine the level of personnel protection;
  2. Contingency plans to deal with emergencies and accidental exposures;
  3. The name and telephone number of emergency coordinator(s) and local emergency officials to be notified in case of emergency during closure;
  4. A delineation of the work zones to be used; and
  5. Personnel decontamination procedures.
14. **Appendix IV, page IV-1.** If the product of fifteen times the MCLG is less than the contaminants analytical detection limit then its detection limit shall be used as the clean standard.

15. **Appendix IV, pages IV-3 & 4.** Rinseate containing concentrations of hazardous constituents, including decay products, derived from listed waste(s) shall be managed as listed hazardous waste. (See deficiency No. 5. which requires a list of hazardous waste constituents.)
16. **Appendix IV, pages IV-3 & 4.** The plan must clearly explain the source of the final rinseate sample and the method for collecting the sample.
17. **Appendix IV, pages IV-3 & 4.** The plan states, "A sample of the City or well water used will be the "background" sample or "blank" against which the final rinse of Pad will be tested". No background sampling is used in determining the rinseate clean standards. These standards are correctly listed on page IV-1.
18. **Appendix IV, pages IV-3 & 4.** The plan states, "The initial rinseate sample from the scrubber will also accompany samples to Lab to assure that no contamination was picked up from the scrubber itself". This statement is not clear. This must be described in more detail.
19. **Appendix IV, pages IV-3 & 4.** The plan states, "The entire container storage area to be tested (Part 1 or Part 2) will be gone over one final time with the Tennant Scrubber and that rinse water will also be sampled by the ET and sent, with the blanks, to Conoco Lab in Ponca City, OK. This will give a representative sample of the entire hazardous waste container storage unit". This statement is not clear. The plan must clearly explain the step-by-step procedure for washing and rinsing components to be closed, and sampling the rinseate generated.
20. **Appendix IV, pages IV-3 & 4.** The plan must include an estimate of the rinseate to be generated.
21. **Appendix IV, pages IV-3 & 4.** The plan must include design details for the equipment decontamination area and indicate the location of this decontamination area.
22. **Appendix IV, pages IV-3 & 4.** The plan must indicate the contractor(s) considered to perform closure of F Row.

23. **Section 8.0, pages 11 & 12.** The schedule of closure must be described in more detail. It must include, but not be limited to, the following:
1. Waste removal;
  2. Decontamination;
  3. Sampling (including soil and rinseate);
  4. Analysis;
  5. Soil removal and backfilling (if necessary);
  6. Critical points when the independent engineer or his representative will be present; and
  7. Independent engineer's certification.

Please note, the Ohio EPA will only review the final certification. It is the responsibility of DuPont to determine that it is acceptable to move from Part 1 to Part 2.

DuPont must contact the Northwest District Office at least five business days in advance of critical activities, such as sampling, soil removal and storage unit decontamination, so that an inspector may be present to observe these activities or obtain split samples.

24. **Section 9.0, pages 12 & 13.** The certification document must include, but not be limited to, the following:
1. The certification statement;
  2. Reference to the approved closure plan;
  3. The volume of soil removed (if any) and its treatment;
  4. The volume of rinseate generated and its treatment;
  5. Details of sampling and analytical results;
  6. A copy of each hazardous waste manifest completed as a result of closure activity; and

Attachment A  
DuPont  
F Row Closure NOD  
Page Six

7. The signature of the owner/operator and qualified, independent, registered, professional engineer.

END



ate of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020 Fax (614) 644-2329

Richard F. Celeste  
Governor

## CLOSURE PLAN APPROVAL

### CERTIFIED MAIL

December 13, 1990

RE: CLOSURE PLAN  
E.I. DuPont de Nemours  
OHD 005 041 843

Mr. Anthony Parchomenko  
E.I. DuPont de Nemours  
1930 Tremainsville Road  
Toledo, Ohio 43613

Dear Mr. Parchomenko

On August 2, 1989, E.I. DuPont de Nemours submitted to Ohio EPA a closure plan for hazardous waste storage tanks 1-13 and 15 located at 1930 Tremainsville Road, Toledo, Ohio. Revisions to the closure plan were received on October 2, 1990 in response to the Director's August 6, 1990 Notice of Deficiency. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that E.I. DuPont de Nemours' proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of E.I. DuPont de Nemours in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of E.I. DuPont de Nemours' submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at E.I. DuPont de Nemours meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

The closure plan submitted to Ohio EPA by E.I. DuPont de Nemours is hereby approved.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carvin Date 12-13-90

OHIO E.P.A.  
DEC 13 90  
ENTERED DIRECTOR'S JOURNAL

Mr. Anthony Parchomenko  
Page Two

Notwithstanding compliance with the terms of the closure plan, the Director may, on the basis of any information that there is or has been a release of hazardous waste, hazardous constituents, or hazardous substances into the environment, issue an order pursuant to Section 3734.20 et seq of the Revised Code or Chapters 3734 or 6111 of the Revised Code requiring corrective action or such other response as deemed necessary; or initiate appropriate action; or seek any appropriate legal or equitable remedies to abate pollution or contamination or to protect public health or safety or the environment.

Nothing here shall waive the right of the Director to take action beyond the terms of the closure plan pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.A. §9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA") or to take any other action pursuant to applicable Federal or State law, including but not limited to the right to issue a permit with terms and conditions requiring corrective action pursuant to Chapters 3734 or 6111 of the Revised Code; the right to seek injunctive relief, monetary penalties and punitive damages, to undertake any removal, remedial, and/or response action relating to the facility, and to seek recovery for any costs incurred by the Director in undertaking such actions.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.014 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

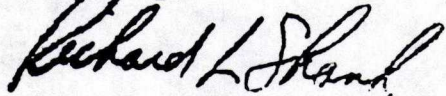
By: Mary Carvin Date 12-13-90

OHIO E.P.A.  
DEC 13 90  
ENTERED DIRECTOR'S JOURNAL

Mr. Anthony Parchomenko  
Page Three

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and an independent, registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,



Richard L. Shank, Ph.D.  
Director

RLS/PV/pas

cc: Paul Vandermeer, Ohio EPA, DSHWM  
Lisa Pierard, USEPA-Region V  
Joel Morbito, USEPA - Region V  
Seuk W. Kang, NWDO, Ohio EPA

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Gavin Date 12-13-90

OHIO E.P.A.

DEC 13 90

ENTERED DIRECTOR'S JOURNAL



OHD 005 041 843

E. I. DU PONT DE NEMOURS &amp; COMPANY

INCORPORATED

TOLEDO, OHIO 43695

AUTOMOTIVE PRODUCTS DEPARTMENT

CC: Lisa Pierard, USEPA  
Joel Morbito, USEPA  
Chuck Hull, NWDO, OEPA  
Lanet Leite, NWDO, OEPA  
Randy Meyer, CO, OEPA

September 6, 1990

Thomas Crepeau, Manager  
Ohio Environmental Protection Agency  
Division of Solid & Hazardous Waste Management  
Data Management Section  
P.O.Box 1049  
Columbus, Ohio 43266-0149

RE: Notice of Deficiency, 08-06-90  
Partial Closure Plan, 06-23-89  
E. I. du Pont de Nemours and Company  
OHD 005 041 843

Dear Mr. Crepeau:

In reference to the above noted NOD, dated 08-06-90, please be advised that due to other unforeseen circumstances we can not comply with the required time period for completing this Partial Closure Plan modification.

We, therefore, require a 30 day extension to complete this process.

Sincerely,

Anthony Parchomenko  
Environmental Coordinator

RECEIVED  
SEP 10 1990  
OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

BETTER THINGS FOR BETTER LIVING

Du Pont's liability is expressly limited by Du Pont's conditions of sale shown on Seller's price list or Buyer's copy of Seller's order acknowledgment form (if used) and Seller's invoice. All technical advice, recommendations and services are rendered by the Seller free of charge. While based on data believed to be reliable, they are intended for use by

skilled persons at their own risk. Seller assumes no responsibility to Buyer for events resulting or damages incurred from their use. They are not to be taken as a license to operate under or intended to suggest infringement of any existing patent.



State of Ohio Environmental Protection Agency

O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020 Fax (614) 644-2329

Richard F. Celeste  
Governor

CERTIFIED MAIL

Notice of Deficiency

AUG 06 1990

Anthony Parchomenko,  
Senior Engineer  
E.I. DuPont de Nemours  
1930 Tremainsville Rd.  
Toledo, Ohio 43613

RE: Closure Plan  
E.I. DuPont de Nemours  
OHD 005 041 843

Dear Mr. Parchomenko:

On July 7, 1990, Ohio EPA received from E.I. DuPont de Nemours a closure plan for hazardous waste tanks 1 through 13 and 15 at your facility located at 1930 Tremainsville Road, Toledo, Ohio.

This closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that E.I. DuPont de Nemour's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan in accordance with OAC Rule 3745-66-12. The public comment period extended from February 5, 1990 to March 13, 1990. No public comments were received by Ohio EPA.

Pursuant to OAC 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the plan, outlined in Attachment A.

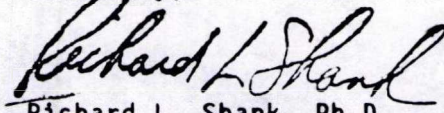
Please take notice that OAC Rule 3745-66-12 requires that a modified closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the

Mr. Parchomenko  
Page Two

receipt of this letter. The modified closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Manager, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149. A copy should also be sent to: Janet Leite at Northwest District Office, 1035 Devlac Grove Drive, Bowling Green, Ohio 43402.

Upon review of the resubmitted plan, I will prepare and issue either a draft or a final action approving or modifying such plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Janet Leite at (419) 352-8461 or Randy Meyer at (614) 644-2956.

Sincerely,

  
Richard L. Shank, Ph.D.  
Director

RLS/RM/pas

cc: Tom Crepeau, DSHWM, Central File, Ohio EPA  
Lisa Pierard, USEPA, Region V  
Joel Morbito, USEPA, Region V  
Chuck Hull, NWDO, Ohio EPA  
Janet Leite, NWDO, Ohio EPA  
Randy Meyer, CO, Ohio EPA

2117U

ATTACHMENT A

DuPONT TANKS 1 through 13 and 15  
CLOSURE PLAN DEFICIENCIES

40 CFR 265.111/OAC 3745-66-11

1. The plan shall provide a topographic map of the facility.
2. The plan shall list other hazardous waste management units at the facility and the wastes handled in each.
3. Page I-16, Attachment II of the plan provides maximum quantities of waste stored in each tank. Pages I-6 through I-7, section I-A, gives general descriptions of the wastes but does not specifically state which wastes are stored in which tanks. No USEPA hazardous waste codes are provided. This information shall be provided.

Tank area design and ancillary equipment (including layout sketches) shall be provided for any of the tanks being closed.

Secondary containment and leak detection system designs shall be provided for any of the tanks being closed.

4. Reference to other environmental permits the facility may hold, such as NPDES or TSCA permits, shall be made in the plan.

40 CFR 265.112 (b)(3)/OAC 3745-66-12(B)(3)

5. Page I-16, Attachment II of the plan gives quantities of wastes for each tank shall also specify the following:
  - a) quantities of pumpable wastes in each tank;
  - b) quantities of residues in each tank; and
  - c) quantities of contaminated liquids resulting from closure decontamination activities.

6. Transportation distances to off-site treatment/disposal facilities are not provided in the plan.

7. Page I-16 of the plan states that closure costs are based on sending drummed waste to Systech for disposal while page I-10, B-7 states that "all cleaning solutions shall be...shipped under hazardous waste manifest to Ross Incineration Services for disposal". Why does the plan give costs based on Systech disposal prices if the wastes will be disposed of at Ross?

40 CFR 265.112 (b)(4)/OAC 3745-66-12(B)(4)

8. Page I-10, B-7 of the plan states how rinseates will be disposed of but fails to provide quantities, waste types, and USEPA hazardous waste codes. Please provide this information.

9. Pages I-10 through I-11 Section C of the plan describes what will be done with all tanks after closure (dismantled or converted back to process purposes) except Tank #13. Please provide this information.

10. Item B-3

After the last triple rinse with high pressure clean water, samples of the rinseate shall be analyzed for the constituents of each individual tank. If the parameters are at or below the criteria specified below and there is no visible residual contamination, these tanks can be certified as clean.

11. Item B-5

The concrete floors under tanks 1 through 12 and tank 15 will be cleaned to remove any stains. To confirm that the floors are clean, the rinseate(s) shall be analyzed for the parameters of interest using the methods and detection limits as outlined in SW-846 - 3rd edition. Parameters at or below the criteria specified below can be certified as clean.

- (1) Public drinking water maximum contaminant level (MCL) for hazardous waste constituents as promulgated in 40 CFR 141.11 and OAC 3745-81-11 for inorganics and 40 CFR 141.12 and OAC 3745-81-12 for organics;
- (2) If an MCL is not available, then the maximum contaminant level goal (MCLG) as promulgated in 40 CFR 141.50 shall be used; or
- (3) If neither an MCL nor an MCLG is available, 1 mg/l shall be used.

If the MCL or MCLG is less than the contaminant's analytical detection limit using methods found in USEPA Publication SW-846, the SW-846 analytical detection limit shall be used as the clean standard.

12. The plan shall include a sketch of potentially contaminated soil areas around Tank #13.
13. The plan shall include specific details of the methods to be utilized for the removal of potentially contaminated soil.
14. The plan shall provide estimates of the amount of contaminated soil (if any) to be removed.

15. Item B-6

The plan does not define the term "representative soil samples" or the number of samples and the depth(s) of sampling. For sites of .001 to .25 acres, the grid interval is 20 feet with a minimum number of 9 sample stations. Alternatively, DuPont may use the following equation to set up a sampling grid:

$$\frac{A/3.14}{2} = GI \quad \text{where } GI = \text{grid interval} \\ A = \text{area to be gridded}$$

40 CFR 265.114/OAC 3745-66-14

16. The plan states on pages I-10, B-7, that "all cleaning solutions" will go to Ross, but also shall specify where or how potentially contaminated soils will be disposed of.

40 CFR 265.114(b) and (c)/OAC 3745-66-14(B) and (c)

17. The plan fails to provide information on posted signs and the 24 hour surveillance system. It also fails to mention a fence or natural barrier around the site, if applicable. Please provide this information.

40 CFR 265.115/OAC 3745-66-15

18. The Closure Certification section of the plan fails to include information on the following:

- a) Specific details on testing and analyses to be performed;
- b) Criteria to be used to determine the adequacy of these analyses;
- c) Details on a schedule of inspections to be made by an independent, registered professional engineer during the closure process. These inspections are to occur during critical points of the closure process and are to be documented; and
- d) All types of documentation which will be acquired during closure activities.

40 CFR 265.112(b)(7)/OAC 3745-66-12(B)(7)

19. The plan fails to provide the date of expected closure of the entire facility.

20. Page I-10 Item B-7

The closure plan shall discuss the Personnel Protective Equipment the plant personnel will wear or the disposal of this equipment.



of Ohio Environmental Protection Agency

Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149

RECEIVED  
FEB 8 - 1990

OFFICE OF RCRA  
WASTE MANAGEMENT DIVISION  
EPA REGION V

Steve

part B

Richard F. Celeste  
Governor

February 2, 1990

Re: E.I. DuPont de Nemours and Co., Inc.  
US EPA ID No.: OHD005041843  
Ohio Permit No.: 03-48-0195  
Partial Closure Plan

E.I. DuPont de Nemours and Company, Inc.  
Attn: Mr. Anthony Parchomenko  
1930 Tremainsville Road  
Toledo, Ohio 43613

8/2/89

Dear Mr. Parchomenko:

A public notice acknowledging the Ohio EPA's receipt of a partial closure plan for E.I. DuPont de Nemours and Company, Inc., Toledo, Ohio will appear the week of February 5, 1990 in the Toledo Blade, Toledo, Ohio. The Director of the Ohio EPA will act upon the partial closure plan request following the close of the public comment period, March 13, 1990.

Copies of the partial closure plan will be available for public review at the Toledo-Lucas County Public Library, 325 Michigan Street, Toledo, Ohio 43624 and the Ohio EPA, Northwest District Office, 1035 Devlac Grove Drive, Bowling Green, Ohio 43402.

I may be contacted at (614) 644-2977, if you have any questions concerning this matter.

Very truly yours,

*Thomas E. Crepeau*

Thomas E. Crepeau, Manager  
Data Management Section  
Division of Solid & Hazardous Waste Management

TEC/dhs

cc: Lisa Pierard, U.S. EPA, Region V  
Randy Meyer, OEPA, DSHWM, TAS  
Janet Leite, OEPA, DSHWM, NWDO

2471R(37)

PUBLIC NOTICE

Lucas County

RECEIPT OF HAZARDOUS WASTE PARTIAL CLOSURE PLAN

For: E.I. DuPont de Nemours and Company, Inc., 1930 Tremainsville Road, Toledo, Ohio, U.S. EPA ID No.: OHD005041843, Ohio Permit No.: 03-48-0195. The Ohio Environmental Protection Agency (Ohio EPA) is hereby giving notice of the receipt of a Hazardous Waste Facility Partial Closure Plan involving hazardous waste tanks #1 through 13 and 15 for the above referenced facility.

Copies of the facility's partial Closure Plan will be available for public review at the Toledo-Lucas County Public Library, 325 Michigan Street, Toledo, Ohio 43624 and the Ohio EPA, Northwest District Office, 1035 Devlac Grove Drive, Bowling Green, Ohio 43402.

Comments concerning the partial Closure Plan should be submitted before March 13, 1990 to: Ohio EPA, Thomas E. Crepeau, Div. of Solid & Hazardous Waste Mgmt., Data Management Section, P.O. Box 1049, 1800 WaterMark Drive, Columbus, Ohio 43266-0149.

SUMMARY

The facilitie's closure plan will adhere to the performance standard specified in 264.111.

All hazardous waste in tanks will be drained into portable tanks or drums. These tanks will be rinsed with common solvents and again drained into drums. The tanks will then be dried until no residual wet material is left. All drums and portable tanks of waste will be disposed of utilizing existing contracts for incineration. ~~{No e}~~ Corrosive ~~{or formaldehyde}~~ waste IF IT exists on the plant WILL BE TREATED TO LOWER THE PH AND SHIPPED TO A WATER TREATMENT FACILITY FOR DISPOSAL. ~~{or is expected if closure does take place}~~



O. WMD  
CC: RF  
CERT P 081 857 964

E. I. DU PONT DE NEMOURS & COMPANY  
INCORPORATED  
TOLEDO, OHIO 43695

June 29, 1989

FINISHES & FABRICATED PRODUCTS

Regional Administrator  
U. S. Environmental Protection Agency  
Region V  
230 South Dearborn St.  
Chicago, Ill 60604

RECEIVED

1-TSD-PART "A"  
PART "B"

JUL 3 1989

Dear Sir,

U. S. EPA REGION 5  
OFFICE OF REGIONAL ADMINISTRATOR

As directed by Ms. Peggy Brannigan of Ohio EPA's Northwest District Office we are resubmitting a copy of the revised Closure Plan.

Ms. Brannigan's letter dated June 2, 1989 is enclosed for clarification.

Three (3) copies of this Plan are also being sent to the Ohio EPA at this time.

If you have any questions regarding the closure plan, please write to my attention, or call me at (419) 478-1211.

RECEIVED

JUL 05 1989

OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

Sincerely,

Anthony Parchomenko  
Senior Engineer

E.I. DuPont de Nemours +60 ✓  
1930 Tremainsville Rd. ✓  
Toledo, Ohio 43613 ✓

RECEIVED

JUL 05 1989

U. S. EPA, REGION V  
SWB - PMS

cc: R. E. Austin  
J. E. Randall

BETTER THINGS FOR BETTER LIVING